TABLE 9.10 Early History of Cocaine

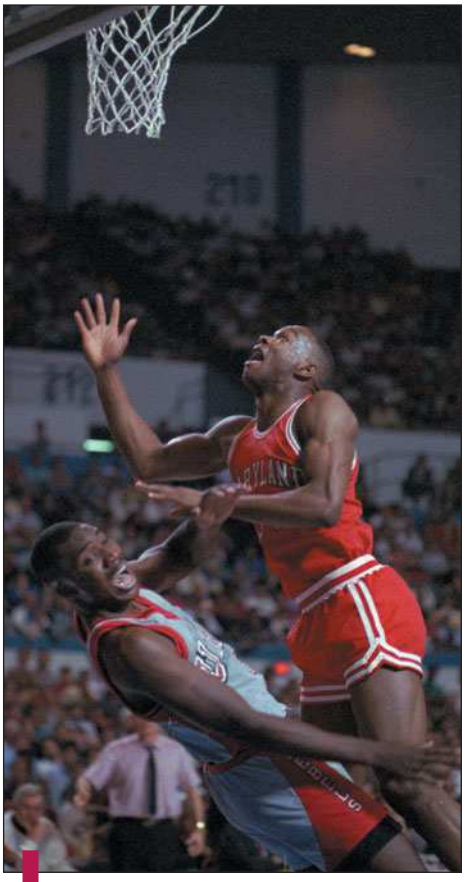
6th century C.E. ■ Peruvians bury coca leaves as a "necessity" for the afterlife, likely indicating use at that time.
16th century C.E. ■ Spaniards pay gold/silver mine slaves with coca leaves to improve performance.
1859 ■ Alkaloid cocaine isolated from coca leaves.
1884 ■ Freud publishes "Über Coca" describing cocaine as a central nervous system stimulant useful in treatment of numerous ailments.
1886 ■ Coca-Cola, containing cocaine, produced by Georgia pharmacist Pemberton as "brain tonic" drink (caffeine substituted for cocaine in 1906).
1906/1914 ■ Federal Acts require cocaine listed as an ingredient in patent medicines and registration of those involved in trade of coca products.

From Kerfoot, Sakoulas, & Hyman, 1996, p. 158

will prefer it to food, sex, or warmth (Robson, 1999; McDowell & Spitz, 1999). While not all users become addicted, the powerful physical and psychological reinforcement of the drug can lead relatively quickly to dependence. Current research suggests that between 5 and 20% of cocaine users become addicted, with women and African Americans at highest risk for early addiction, even though these groups use cocaine at lower rates overall than whites and Latinos in the United States (O'Brien et al., 2005).

Cocaine "binges"—a compulsive pattern of frequent re-dosing—can sometimes last for days. Tolerance also develops rapidly. Withdrawal from cocaine is not as dramatic as withdrawal from alcohol or opioids, but it can be very unpleasant. The infamous "crash" of cocaine withdrawal involves cravings, depression, and irritability. Users sometimes combine cocaine with heroin (known as a "speedball") in order to lessen the effects of the crash (David et al., 2001). The less dramatic withdrawal syndrome associated with cocaine as compared to some other drugs has misled users and even health-care professionals, at times, into believing that cocaine is not addictive (Fleming et al., 1996).

One of the greatest dangers of cocaine use is overdose, even from relatively small amounts of the drug. Overdoses of cocaine, like amphetamines, can cause psychosis, seizures, and fatal heart attacks. This danger of cocaine use received heavy press coverage in 1986 when Len Bias, a University of Maryland basketball star, died of a heart attack caused by an apparently modest dose of cocaine, shortly after he was chosen by the Boston Celtics in the first round of the NBA draft (Smith, 1992).



Dangers of cocaine use Len Bias, shown in the red uniform during an NCAA tournament game, died of a heart attack after using cocaine. Bias, who played at the University of Maryland, was a first round NBA draft pick, but he never played professionally because of his untimely death.

Amphetamines (Speed, Uppers, Bennies, Crank, Ice, Crystal Meth)

Amphetamines are drugs with a chemical structure quite similar to those of the neurotransmitters norepinephrine and dopamine, and they produce their stimulant effects by increasing the availability of these neurotransmitters. Amphetamines were first synthesized in the 1880s, but they were not introduced medically until almost 50 years later (McDowell & Spitz, 1996). The first medical stimulants were made available in 1932 as appetite suppressants for weight loss, and this has continued to be one of their common uses and abuses (Kanayama et al., 2001).

Amphetamines Synthetic stimulants with a chemical structure similar to that of the neurotransmitters dopamine and norepinephrine.

When they first became available in the 1930s, amphetamines were hailed as wonder drugs. As with so many other drugs, this period of wild enthusiasm was only later tempered by a more balanced understanding of the risks associated with their use. Methamphetamine, the most popular early form of amphetamine, was widely used as a "pep pill" throughout the 1940s and 1950s (McDowell & Spitz, 1996). Truck drivers, students, and others who needed to stay awake for long periods were eager users. Some

of the popularity of amphetamines during this era can be attributed to their widespread use during World War II. The American, British, Japanese, and German militaries all experimented with giving amphetamines to soldiers in order to enhance performance. Large stockpiles of amphetamines remaining after the war were made easily available, without a prescription, to the general population through aggressive marketing by drug companies (Ray & Ksir, 2002). In fact, the first recorded instance of widespread amphetamine abuse occurred among the Japanese population following World War II, when a significant percentage of the Japanese population became amphetamine-dependent (Robson, 1999).

As a result of increasing abuse, the United States government established tighter controls over amphetamines in the late 1940s and 1950s. But by the 1960s, amphetamine use was soaring. Amphetamines were being widely prescribed to facilitate weight loss and to treat depression (King & Ellinwood, 1997)—two uses that are now considered medically questionable. The term *speed freak* became commonplace as recreational IV methamphetamine use increased (Ray & Ksir, 2002). Between 1969 and 1971, the U.S. government embarked on a campaign to reduce amphetamine production and to educate doctors and the public about the dangers of amphetamine abuse (using the slogan "speed kills") (King & Ellinwood, 1997; McDowell & Spitz, 1996). Production of amphetamines dropped by 80% during this period, and many abusers shifted to cocaine, which became increasingly available in the 1970s (Erickson et al., 1994). Other abusers began manufacturing their own amphetamines in homemade labs, a practice that continues today and is a primary source of "crank" (methamphetamine) and "ice" (a smokable form of methamphetamine) (Wilson, 2000).

Currently, amphetamines do have some appropriate medical uses. They are considered a standard treatment for narcolepsy (a sleep disorder characterized by sudden and frequent onset of sleep) and for attention-deficit/hyperactivity disorder (ADHD; see Chapter 13) (Littner et al., 2001). Methylphenidate (Ritalin) has been shown, paradoxically, to have a calming effect in treating ADHD, probably because it stimulates attentional and behavioral inhibition centers in the brain (Solanto, Arnsten, & Castellanos, 2001). However, there is controversy surrounding the use of stimulants in treating ADHD, as critics charge that ADHD is overdiagnosed and stimulant treatments are overprescribed (Chapter 13).

While the use of stimulants as a primary treatment for depression has been discredited and replaced by far more effective treatments, amphetamines are still prescribed for weight loss. This practice has been particularly controversial because research indicates that the weight-reducing effects of amphetamines are only temporary, and the drugs usually have side effects (Bessesen, 2002). Furthermore, some stimulants marketed as weight loss agents have been later shown to pose health risks. For example, the combination of fenfluramine and phentermine (known as "fenphen") was first thought to be a breakthrough in longer-term weight reduction, but was later withdrawn from the market in 1997 after reports of serious heart and lung disease associated with its use (Stahl, 1997).

Currently, amphetamines and related drugs continue to be widely abused. They can be ingested, taken intravenously, or smoked. Amphetamines are as potent as cocaine, and the high lasts longer (de la Torre et al., 2000). However, street amphetamines are often diluted; were this not the case, most stimulant users would not be able to distinguish between a cocaine and an amphetamine high (Robson, 1999). Tolerance and dependence on these drugs can develop relatively quickly, sometimes within weeks (Jansen & Darracot-Cankovic, 2001). Amphetamine withdrawal is similar to cocaine withdrawal; it is not usually medically dangerous, but it does involve a very unpleasant "crash" consisting of depressed mood, decreased energy, increased appetite, and irritability in addition to powerful cravings for the drug, which can last for days

(Rothman et al., 2000). Even within the drug culture, amphetamines have a mixed reputation. Frank Zappa, the rock musician, once said: "I would like to suggest that you don't use speed, and here is why: it will mess up your liver, your kidneys, rot out your mind. In general, these drugs will make you just like your parents" (quoted by Robson in Shapiro, 1989).

Nicotine A mild stimulant found in the leaves of the tobacco plant.

Caffeine A mild stimulant found in many foods and beverages.

Nicotine

Nicotine is a mild stimulant found in the leaves of the tobacco plant, which can be chewed or smoked after drying. Nicotine is highly addictive and very toxic in large doses. Sixty milligrams of nicotine—half the amount in a typical cigar—is enough to kill a person within minutes (Ray & Ksir, 2002). However, nicotine is absorbed gradually while smoking, and it is typically taken in smaller doses (an average cigarette contains 1 mg) that are not very toxic.

Nicotine is rapidly absorbed and reaches the brain within 20 seconds (McDowell & Spitz, 1999). Its stimulant effects include increased heart rate, elevated blood pressure, and improved mood. Nicotine is highly reinforcing; experiments demonstrate that monkeys will engage in strenuous work if rewarded with nicotine injections. In humans, the reinforcing effects include pleasant mood, anxiety reduction, and relief from withdrawal symptoms that occur when nicotine is withheld. These withdrawal symptoms can include depression, irritability, insomnia, restlessness, increased appetite, and weight gain (Slade, 1999). All of these factors contribute to the addictive power of smoking and the difficulties associated with quitting.

The major health problem associated with nicotine use is due to its delivery system—smoking. The chemicals ingested into the lungs in the process of smoking make nicotine the world's deadliest, albeit legal, drug (Kozlowski, Henningfield, & Brigham, 2001). Smoking causes over 400,000 deaths each year in the United States, one-fifth of all deaths (Fisher & Harrison, 1997). The former Surgeon General of the United States, Antonia Novello, put it simply: "Smoking represents the most extensively documented cause of disease ever investigated in the history of biomedical research" (McDowell & Spitz, 1999). Accordingly, there is a fierce debate among health professionals about whether greater restrictions should be placed on the sale and use of tobacco (e.g., Arjonilla, Pelcastre, & Orozco, 2000; Mac-Fadyen, Hastings, & MacKintosh, 2001).

While smoking rates in the United States have steadily declined since 1964, rates continue to increase overseas as tobacco companies look to replace the shrinking U.S. market with other markets (Dunphy, 2000) (see Figure 9.2). In Vietnam, for example, it is estimated that 77% of the population smokes, mostly using American brands.

Nicotine dependence Although it is legal for adults, nicotine can cause dependency, and it is the world's deadliest drug because of the harmful effects of smoking.
James Wilson/Woodfin Camp & Associates

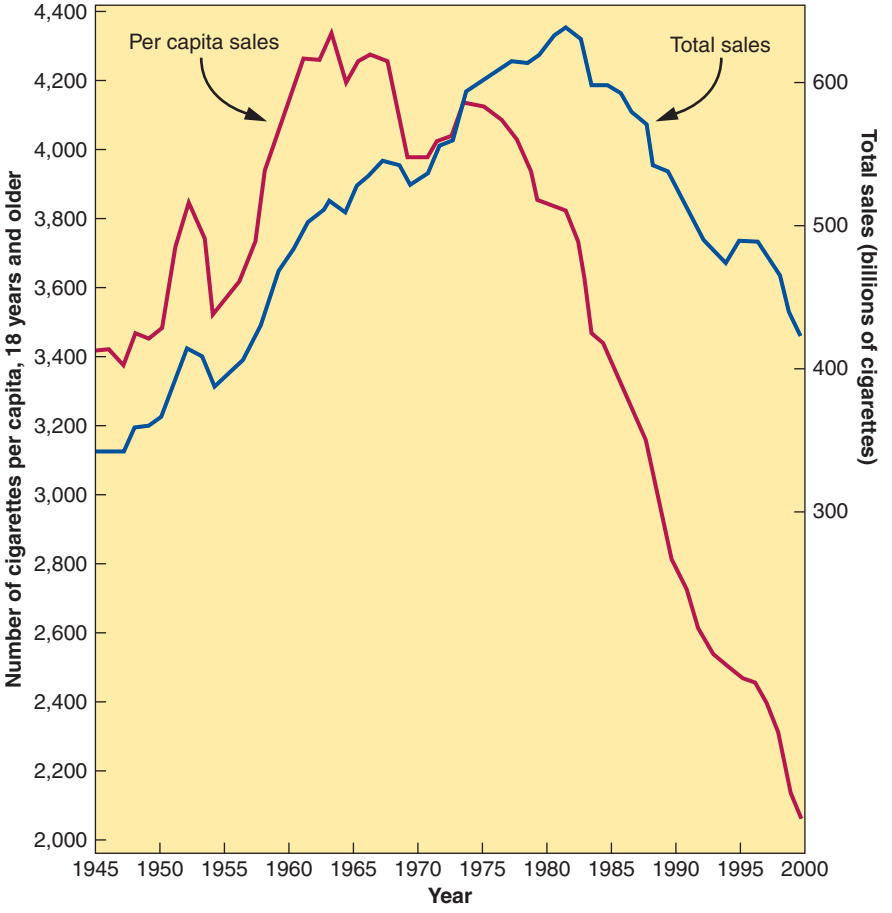


Figure 9.2 Trends in cigarette sales in the United States since 1945 This figure highlights the dramatic decrease in per capita sales of cigarettes since government efforts to reduce smoking began in the 1960s and 1970s. However, total sales of cigarettes continued to increase until around 1980 because of the overall growth of the adult population.
From Ray & Ksir, 2002, p. 308

Caffeine **Caffeine** is a mild stimulant found in many foods and beverages, including coffee, tea, soft drinks, and chocolate, and in various over-the-counter (OTC) drugs (see Table 9.11). Caffeine has been used for centuries, primarily in coffees and teas, for its pleasant stimulant effects. It is popular throughout the world, ranking as the most widely used drug in existence (Miller, 2005). At times throughout history, people have argued that caffeine has either magically medicinal, or devilishly immoral, properties (Ray & Ksir, 2002). In reality, caffeine has relatively mild effects when taken in moderate doses. Its effects include relief from fatigue, enhanced alertness, and relief from headaches. However, research shows that caffeine does little if anything to enhance performance, and it may actually decrease mental performance at high doses (Miller, 2005; Williams & Knight, 1995).

Caffeine is a highly reinforcing drug, and regular caffeine intake can lead to physical and psychological dependence, with tolerance and withdrawal symptoms. Withdrawal usually consists of a headache; regular coffee drinkers often notice this symptom if they decrease their intake. What many caffeine users describe as the pleasurable and helpful effects of caffeine is really just the relief from caffeine withdrawal that "redosing" provides.

Caffeine is not particularly toxic; the lethal dose for humans is around 10 grams, the equivalent of 100 cups of coffee (Ray & Ksir, 2002). Moderate caffeine use is probably not a health risk for most people, although questions remain about the medical consequences of high consumption. Researchers have examined possible links between caffeine intake and cancer, fibrocystic breast disease, heart disease, and other illnesses,

TABLE 9.11 Caffeine Doses in Common Foods, Beverages, and Medicines

Caffeine in Beverages and Foods

ITEM	CAFFEINE (MG) AVERAGE	CAFFEINE (MG) RANGE
Coffee (5-oz cup)		
Brewed, drip method	115	60–180
Brewed, percolater	80	40–170
Instant	65	30–120
Decaffeinated, brewed	3	2–5
Decaffeinated, instant	2	1–5
Tea (5-oz cup)		
Brewed, major U.S. brands	40	20–90
Brewed, imported brands	60	25–110
Instant	30	25–50
Iced (12-oz glass)	70	67–76
Cocoa beverage (5-oz cup)	4	2–20
Chocolate milk beverage (8-oz glass)	5	2–7
Milk chocolate (1 oz)	6	1–15
Dark chocolate, semisweet (1 oz)	20	5–35
Baker's chocolate (1 oz)	26	26
Chocolate-flavored syrup (1 oz)	4	4

(Table continues)

TABLE 9.11 (Continued)

Caffeine in Popular Soft Drinks

BRAND	CAFFEINE* (MG)
Sugar-Free Mr. Pibb	58.8
Mountain Dew	54.0
Mello Yello	52.8
Tab	46.8
Coca-Cola	45.6
Diet Coke	45.6
Shasta Cola	44.4
Mr. Pibb	40.8
Dr Pepper	39.6
Big Red	38.4
Pepsi-Cola	38.4
Diet Pepsi	36.0
Pepsi Light	36.0
RC Cola	36.0
Diet Rite	36.0
Canada Dry Jamaica Cola	30.0
Canada Dry Diet Cola	1.2

Caffeine Content of Nonprescription Drugs

DRUG	CAFFEINE (MG)
Stimulants	
No Doz	100.0
Vivarin	200.0
Analgesics	
Anacin	32.0
Excedrin	65.0
Goody's Headache Powders	32.5
Midol	32.4
Vanquish	33.0
Diuretics	
Aqua-Ban	100.0
Maximum-Strength Aqua-Ban Plus	200.0

* Per 12-oz serving

From Ray & Ksir, 2002, pp. 337 & 340

with mixed results. At this point, most medical experts suggest that it is not harmful to use moderate amounts of caffeine, except possibly during pregnancy.

Caffeine is not specifically listed as a substance associated with either abuse or dependence in the DSM-IV-TR (APA, 2000), but many researchers do believe that a caffeine dependence syndrome exists (e.g., Pressman & Orr, 1997). *Caffeinism,* a related condition, can include symptoms of irritability, insomnia, nervousness, twitching, heart arrhythmias and palpitations, and gastrointestinal disturbances due to high caffeine intake (Tarter, Ammerman, & Ott, 1998).

Hallucinogens Substances that produce hallucinatory changes in sensory perception.

LSD Lysergic acid diethylamide, a potent synthetic hallucinogen.

Hallucinogens

Hallucinogens are so named because of their tendency to produce *hallucinations*—internally generated sensory perceptions. The term *hallucinogen* applies to all natural or synthetic substances that have this effect. This class of substances is also sometimes referred to as *psychedelic* (literally, "mind-viewing") or *psychotomimetic* (psychosis mimicking) drugs. Some enthusiasts describe them as *entheogens*, substances that produce spiritual or religious experiences (Strassman, 1995).

Plants and fungi with hallucinogenic properties are found throughout the world. Hallucinogens have been used for centuries, in many cases as part of religious practices. Scholars have speculated that hallucinogenic drugs may be responsible for phenomena ranging from the wild imagery of the Book of Ezekiel in the Bible to the behavior of the women who were burned as witches during the Salem witch trials (Ray & Ksir, 2002). At various times, hallucinogens have been used by spiritual seekers, artists, and those in the counterculture wishing to open the "Doors of Perception" (the title of Aldous Huxley's famous book about his experiments with hallucinogens). Hallucinogens have been illegal in the United States since 1965, but researchers are currently investigating possible therapeutic and scientific uses of some of these drugs since recent studies suggest that they can cause lasting improvements in mood and sense of well-being (e.g., de Wit, 2006; Griffiths et al., 2006).

LSD (Acid) Lysergic acid diethylamide **(LSD)** was originally synthesized in 1938 from alkaloids extracted from a fungus. A related compound was later found to exist naturally in the seeds of the morning glory plant (Littell, 1996; Robson, 1999). LSD has a chemical structure similar to that of the neurotransmitter *serotonin* and binds at a type of serotonin receptor (Stain-Malmgren et al., 2001). LSD, which is usually taken orally, is one of the most potent known psychotropic substances. Physically, it causes sympathetic nervous system effects such as dilated pupils and increased temperature and blood pressure (Ghuran & Nolan, 2000). LSD's psychological effects include profound perceptual changes, depersonalization (Chapter 7), and enhanced emotionality, typically either along grandiose/spiritual or anxious/paranoid lines. Effects usually last six to nine hours (Ghuran & Nolan, 2000).

Albert Hofmann discovered LSD while working as a chemist for Sandoz Labs in Basel, Switzerland. In 1943, Dr. Hofmann was attempting to develop new stimulant medications when he had a pleasant hallucinatory experience that resulted from the accidental absorption of LSD. Subsequently, he deliberately ingested LSD to study its effects. In the company of an assistant, Dr. Hofmann tried to dutifully record his experience. Unfortunately for him, he took what is now recognized as a huge dose of this powerful drug—0.25 milligrams, 10 times more than the minimal effective dose of around 20 to 25 micrograms (Brendel, West, & Hyman, 1996). Dr. Hofmann had the first recorded "bad trip" (McDowell & Spitz, 1999)! He had an intense, unpleasant hallucinatory experience, which included *synthesesia* (the mixing of sensory experiences, such as "seeing" sounds).

Between 1953 and 1966, Sandoz Labs distributed LSD to many researchers for further study. Various uses for LSD were investigated, such as to enhance psychotherapy, as a treatment for alcoholism, and as a model for studying psychosis, but none panned out (Hofmann, 1994; Novak, 1997; Mangini, 1998). When LSD gained popularity as a street drug during the 1960s, Sandoz Labs stopped sponsoring LSD research and distributing the substance.

Also during the 1950s and 1960s, the U.S. military and the Central Intelligence Agency (CIA) engaged in some disturbing research with LSD despite evidence that the

dangers of the drug were already well understood (Neill, 1987; Novak, 1998). LSD was given to at least 585 soldiers and 900 civilians, often without their knowledge or consent (Strassman, 1995). One subject, a biochemist named Frank Olson, suffered an extended psychotic reaction and committed suicide two weeks after he had LSD secretly slipped into his drink during an experiment. His family was told at the time only that he had fallen or jumped out of a window. The full extent of these government LSD experiments was revealed later, in part due to the investigation of Dr. Olson's death over 20 years after the experiments occurred (Robson, 1999).

LSD was popularized as a street drug in the 1960s largely as a result of the efforts of Timothy Leary who was, at the time, a Harvard professor. When Dr. Leary began violating research guidelines while conducting LSD experiments, he was dismissed from Harvard, but he continued to advocate LSD use through his League for Spiritual Discovery (also known as "LSD"). Street use of LSD reached a peak around 1968, and then declined, due in part to fears concerning the possibility of "bad trips," psychotic reactions, flashbacks, and rumors about possible chromosome damage from LSD use (Batzer, Ditzler, & Brown, 1999; Littell, 1996). Recently, however, LSD usage appears to have increased again among young people.

LSD use does not seem to cause physical dependence or withdrawal, but tolerance does occur; a person taking the same daily dose of LSD will find that the drug becomes completely ineffective within days (Ray & Ksir, 2002). In addition, cross-tolerance occurs with other hallucinogens. LSD can apparently precipitate an ongoing psychotic condition in a vulnerable individual, and treatment is sometimes required for users having temporary panic or distressing psychotic symptoms (Batzer et al., 1999). These individuals are kept safe, reassured ("talked down"), and occasionally given benzodiazepines to help reduce anxiety.

Psilocybin (Mushrooms)

Psilocybin is the active ingredient found in scores of mushrooms with hallucinogenic properties that grow worldwide (Griffiths et al., 2006). Psilocybin, like LSD, is chemically quite similar to the neurotransmitter serotonin, and its effects are nearly identical to those of LSD, though it is far less potent (Ghuran & Nolan, 2000). The Aztec Indians have used psilocybin in religious ceremonies for hundreds of years, and early Western explorers learned from the Aztecs about its hallucinatory properties. However, Western knowledge of psilocybin was suppressed for centuries because Spanish priests were offended by the religious practices of the Aztecs and destroyed their writings and teachings (Ray & Ksir, 2002). Western knowledge of psilocybin did not resurface until the mid-1900s (Smith, 1995). In 1955, an American ethnobotanist and former banker named Gordon Wasson gained access to ceremonies of an indigenous group using "magic mushrooms." He described his experience as follows: "It permits you to travel backwards and forwards in time, to enter other planes of existence, even (as the Indians say), to know God" (Ray & Ksir, 2002, p. 380). Psychedelic mushrooms became popular during the counterculture movement of the 1960s.

Psilocybin The active ingredient found in mushrooms with hallucinogenic properties.

Peyote A small, carrot-shaped cactus containing mescaline found mostly in Mexico and Central America.

Mescaline A hallucinogenic substance found in peyote.

Peyote/Mescaline

Peyote is a small, carrot-shaped cactus found mostly in Mexico and Central America. **Mescaline**, the primary active ingredient in peyote, was first isolated in the 1890s and first synthesized in 1918 (Robson, 1999). Mescaline causes euphoric and hallucinatory experiences very similar to those associated with LSD and psilocybin, but its chemical structure is different—less like serotonin and more like the neurotransmitters norepinephrine and dopamine (Ray & Ksir, 2002). Peyote is usually eaten, in the form of sun-dried "buttons" taken from the cactus (Brendel et al., 1996). As with other hallucinogens, tolerance does occur, but dependence and withdrawal are rare (Stephens, 1999).

Psychedelic art The popularity of psychedelic drugs in the 1960s led to psychedelic art such as this 1967 work by Minnie Evans (1892–1987), now housed at the Smithsonian Institution in Washington, DC.

Minnie Evans (1892-1987) / Art Resource, ©Smithsonian American Art Museum, Washington, DC

Legal marijuana This man is smoking marijuana in the "Cannabis Castle" outside Nijmegen, Holland. Marijuana was decriminalized in Holland in the 1970s.

©AP/Wide World Photos

Marijuana The world's most widely used illegal substance; derived from the cannabis plant.

Many Native American tribes have used peyote for centuries in religious rituals, and as recently as 1960 "peyotism" was the major religion of Native Americans in the Western United States (Garrity, 2000; Hopgood, 2000; Swan & Perez, 2000; Weaver, 2001). Peyote is legal in some states when used by Native Americans for religious purposes—an interesting example of ***cultural relativism*** concerning substance use. This legal protection has been challenged in some states, but peyote currently remains the only legally sanctioned hallucinogen in the Western world (Brooke, 1997; Epps, 2001; Robson, 1999).

Other Drugs

The following drugs do not easily fit into the categories of depressants, stimulants, and hallucinogens. They have properties similar to some of the substances already discussed, but have unique properties as well.

Marijuana (Pot, Weed, Reefer, Grass)

Marijuana is the most widely used illegal drug in the world (Wallace, 1999). It is America's number one cash crop, to the tune of $30 billion per year. Worldwide, it is estimated that hundreds of millions of people use marijuana daily (Dawsey, 1996).

Marijuana comes from the dried and crushed flowers, leaves, seeds, and stems of some strains of the *cannabis* plant. The primary psychoactive ingredient in these plants is tetrahydrocannabinol, abbreviated as *THC,* which is concentrated in the resin of the plant. The different parts of the cannabis plant have different concentrations of THC-containing resin, which are reflected in the different potencies of several related substances. Marijuana, made primarily from the leaves and seeds, typically contains between 1 and 8% THC. More potent substances such as hashish (hash) and sinsemilla are made specifically from the resin-rich flowering tops of the plant, which contain up to 14% THC.

Marijuana and its related substances are typically smoked, but they can also be eaten (usually baked into food), or used as teas. Marijuana is rapidly absorbed when smoked, and its effects begin within minutes, reaching a peak within about two hours. However, marijuana is metabolized slowly, with a high that can last several hours and a **half-life** of about two days (Losken, Maviglia, & Friedman, 1996). The half-life of a drug is the amount of time it takes for half of the substance to be eliminated from the body. In general, the shorter the half-life of a substance, the sooner its effects dissipate. Because of its long half-life, regular marijuana users, like Rob (described in one of the chapter opening case vignettes), can easily become chronically "stoned" (McDowell & Spitz, 1999).

Half-life The amount of time it takes for half of a substance to be eliminated from the body.

Ecstasy (MDMA) A synthetic amphetamine/stimulant with some hallucinogenic properties.

The effects of marijuana are varied, and include some depressant, hallucinogenic, and stimulant properties that have made the classification of marijuana controversial. The most common effects are enhanced sensory experience, relaxation, euphoria, altered time sense, increased appetite, and, for some users, anxiety and paranoia. Physical changes include increased pulse and blood pressure, dilation of blood vessels (causing bloodshot eyes), dry mouth, and decreased reaction time (Fisher & Harrison, 1997). The brain mechanisms of marijuana are not fully understood, but THC seems to bind at endogenous cannabinoid receptors that may have a role in mood, memory, and sensory regulation. These receptors appear to be designed for an endogenous substance called *anandamide* that shares marijuana-like properties (Ray & Ksir, 2002). Marijuana also has some medically beneficial effects, which have ignited controversy about its illegal status. For example, there is evidence that marijuana can help treat loss of appetite, severe nausea (as from chemotherapies for cancer), glaucoma, and pain (Nichols, 2000).

Regular marijuana use can cause tolerance, withdrawal, and both physical and psychological dependence. Withdrawal symptoms can include irritability, restlessness, insomnia, craving, tremors, and chills. While overdoses of marijuana are very unusual, the drug can cause both acute and chronic health problems. Some marijuana users experience flashbacks and panic reactions, which can be treated with supportive reassurance and antianxiety medications if necessary.

Long-term problems associated with marijuana use are more varied and complex. Marijuana use has been known to precipitate psychosis and may also contribute to problems with learning and short-term memory, impaired judgment and problem solving, loss of balance and coordination, anxiety and panic attacks, and an increased risk of engaging in unsafe behaviors (Harrigan, 1999). In addition, some researchers claim that long-term marijuana use is associated with a controversial condition known as *amotivational syndrome* in which individuals lose their drive and purpose (Cherek et al., 2003; Villarreal, 2002). However, it remains unclear whether this syndrome is actually caused by marijuana use or only correlated with it. Physical problems related to long-term marijuana use include decreased reaction time, immune suppression, lung damage (marijuana contains carcinogens, and one marijuana joint is as toxic as five cigarettes), decreased hormone production, and possible memory loss (Robson, 1999).

Ecstasy (MDMA, XTC, X, Adam, E)

Ecstasy is a synthetic amphetamine/stimulant with some hallucinogenic properties. **MDMA** (methylenedioxymethamphetamine), the chemical compound in ecstasy, was originally patented by the German pharmaceutical company Merck in 1914. MDMA was used in the 1950s and 1960s by the U.S. Army (as a stimulant), by some psychotherapists (to enhance client insight), and recreationally by members of the drug culture of the era (McDowell & Spitz, 1999). Ecstasy has been illegal since 1985, largely through the efforts of Senator Lloyd Bentsen of Texas who became concerned about the easy availability of ecstasy in Texas, where it was sold over the counter, at bars, and through 800 numbers (McDowell & Spitz, 1999).

Ecstasy "raves" The popularity of ecstasy raves among young people has been a cause for concern due to the potential dangers of ecstasy use.
Topham/The Image Works

PCP Phencyclidine, a substance of abuse originally developed as an animal anesthetic.

Ketamine A shorter-acting derivative of PCP still used as an anesthetic.

GHB Gamma-hydroxybutyrate, a so-called natural bodybuilding and sleep aid that has become a popular club drug.

Inhalants Chemicals that produce a "high" when inhaled.

Ecstasy has become popular as a "club" drug and on college campuses (Doyon, 2001). Its popularity is in large part due to its reputation for inducing a pleasurable feeling of empathy, closeness, and connection with other people. Ecstasy is usually taken as a 100 to 150 mg pill. Effects begin approximately 20 minutes after ingestion and last from three to six hours, although larger doses can result in reactions for up to two days. The drug affects many neurotransmitters, particularly the serotonin system (Ghuran & Nolan, 2000). Tolerance does develop, with regular usage resulting in a decrease in the desired effects and increasingly prominent side effects.

Despite its seemingly benign nature, ecstasy is a potentially dangerous drug. It causes permanent damage to serotonin neurons in monkeys and may do so in humans (Kish et al., 2000). In addition, many ecstasy-related deaths have been reported. These appear to be due to dehydration and hyperthermia caused by using the drug in hot, crowded dance clubs (Cloud, 2001; Doyon, 2001; Ling et al., 2001).

PCP (Phencyclidine, Angel Dust) and Ketamine (Special K)

PCP was developed by the Parke-Davis pharmaceutical company in the 1950s for possible use as an anesthetic. Because of side effects associated with it, PCP was designated for use only as an animal anesthetic, and then withdrawn from the market altogether in 1965 when it began to appear on the streets (Giannini, 1998; Senay, 1998). **Ketamine**, a shorter-acting and safer derivative of PCP, is still used as an anesthetic.

PCP and ketamine are sometimes classified as hallucinogens because they do have some hallucinatory effects. However, their mechanism of action in the brain is very different from that of the hallucinogens, and many experts disagree with this classification (e.g., Brendel et al., 1996). PCP is usually smoked (it is often "laced," or mixed with, other substances such as marijuana), but it can also be snorted, injected, or ingested. It produces several hours of a euphoric state, often with hallucinations. Ketamine is more often sniffed as a powder, and it has a highly reinforcing, dissociative effect (McDowell & Spitz, 1999). Police officers are well aware that PCP can also cause bizarre and violent behavior. Because of PCP's anesthetic properties, users can be impervious to pain, yet retain full use of their muscles. As a result, they can be very hard to subdue.

Overdoses of PCP can cause a psychosis resembling schizophrenia, or even coma. Treatment of acute PCP intoxication and prolonged psychotic reactions can require medications, restraints, and a quiet, low-stimulation environment (Giannini, 1998; Senay, 1998).

GHB (Gamma-hydroxybutyrate)

GHB was also developed for possible use as an anesthetic but was withdrawn from use as a medical drug in 1990. However, it has been widely used as a so-called natural bodybuilding and sleep aid, and has recently become popular as a "club" drug (Graeme, 2000). GHB acts mostly like a depressant and thus has dangerous synergistic effects with alcohol (Nicholson & Balster, 2001). Deaths due to this combination have been reported (McDowell & Spitz, 1999). Dependence can develop with GHB, and the withdrawal syndrome is similar to that observed with alcohol and the benzodiazepines. GHB is usually taken in liquid form (and is sometimes called "liquid ecstasy") in doses of about 5 mg, and it causes a highly reinforcing, pleasant dissociative state, most likely mediated by the dopamine system (Nicholson & Balster, 2001). Because GHB, like flunitrazepam (Rohypnol) and ketamine, is colorless, odorless, and tasteless, all three have been implicated as potential "date rape" drugs when slipped into beverages.

Inhalants

The term **inhalants** refers to a wide range of chemicals that produce a "high" when inhaled. Many inhalants are common household products, including solvents such as gasoline, kerosene, glue, nail polish remover, lighter fluid, and paint. Medical drugs,

including gaseous anesthetics like nitrous oxide (laughing gas) and chloroform, or nitrates such as amyl nitrite ("poppers"), can also be abused as inhalants. Solvents are typically used by spraying or soaking a rag, from which the individual then inhales, sometimes under a plastic bag (Fisher & Harrison, 1997). Because they are cheap, readily available, and easy to administer, inhalants are often abused by young adolescents or impoverished individuals (Robson, 1999). Inhalants cause a variety of relatively short-lived effects. Most create temporary dizziness, drowsiness, euphoric feelings, giddiness, slurred speech, and decreased inhibitions. Nitrates cause a faintness (by reducing blood pressure to the brain), which is reputed to enhance sexual pleasure—hence their notorious popularity in sex clubs. Most inhalants do not produce significant tolerance or withdrawal effects, although there are some exceptions to this rule (Robson, 1999). Unfortunately, most inhalants are quite toxic. Acute effects can include hallucinations, headaches, loss of consciousness, cardiac arrhythmias, coma, and death. Permanent liver, kidney, lung, and brain damage can also result from the repeated use of inhalants.

Anabolic Steroids Gonadal steroids are hormones that regulate the functioning of the reproductive system and include the male sex hormone *testosterone.* **Anabolic steroids**—a synthetic subtype of steroids resembling testosterone that tends to increase muscle mass—are often abused with the aim of enhancing athletic performance or physique. The use of substances to improve physical performance has a long history; ancient Greek and Aztec athletes are known to have used various substances to increase endurance and strength (Ray & Ksir, 2002). Many athletes around the world began to use steroids avidly once it was discovered, during the 1930s, that male hormones could increase muscle mass. Soviet athletic teams experimented with the use of testosterone in the 1950s, while Americans began using anabolic steroids. In the 1970s, some Eastern European Olympic teams were using steroids routinely. In one infamous incident, an East German Olympic coach was asked why all his female swimmers had deep voices; he replied "We have come here to swim, not to sing" (Ray & Ksir, 2002). Steroid abuse was so widespread that a 1972 survey of Olympic athletes indicated that 68% had used steroids. As a result of these abuses, bans on steroid use and testing for the banned substances began during the 1970s in many amateur and professional sports. However, steroids remain popular among many athletes and bodybuilders.

Anabolic steroids A synthetic subtype of steroids resembling testosterone that tend to increase muscle mass and are often abused with the aim of enhancing athletic performance or physique.

Steroid abuse These bodybuilders at the Mr. Universe competition in 2002 highlight the growing obsession with muscularity that has contributed to steroid abuse.

Steroid use spread to more casual athletes and younger people, male and female, during the 1980s (Kaufman & Friedman, 1996; Peters & Phelps, 2001). In a 1988 survey, 6.6% of high school seniors reported having used steroids. Concern over this phenomenon led to the passage of the Anabolic Steroids Act of 1990 in the United States, which placed tight control over the distribution and sale of the drugs (Fisher & Harrison, 1997). Since then, illicit steroid users have typically obtained black market steroids which often contain impurities and may be derived from veterinary substances (Kaufman & Friedman, 1996).

Anabolic steroids do have some legitimate medical uses, such as the treatment of muscle loss, blood anemia, HIV, and testosterone deficiencies (Newshan & Leon, 2001; Rabkin et al., 2000). Illicit steroid users tend to use much higher doses (10–100 times higher) of the substance than medically approved amounts. Ironically, it is not clear that anabolic steroid use actually improves athletic performance, although it can increase muscle mass. If it does enhance performance, the effect is probably minor and may be due to the *placebo effect*, which relies on the power of suggestion (Wichstrom & Pedersen, 2001).

There is no doubt, however, about many of the psychological and physical side effects of these drugs. Anabolic steroids increase aggressiveness and have been anecdotally connected with a syndrome of belligerent behavior known as "roid rage" (Thiblin, Kristiansson, & Rajs, 1997). While overdose is not a common danger with these drugs, they do pose serious long-term health risks. Among the side effects of ongoing use are

testicular atrophy, impotence, acne, baldness, hepatitis, high blood pressure, liver damage, and masculinization in women (Midgley et al., 2000).

Tolerance does not seem to occur, but there is a withdrawal syndrome with anabolic steroids involving depression, insomnia, fatigue, and decreased sex drive (Brower, 2000a; Gruber & Pope, 2000). Treatment for steroid abuse focuses on establishing discontinuation and maintaining abstinence through therapy and educational interventions (Brower, 2000b).

The importance of context

Classification in Demographic Context

As we've already noted, substance use and misuse is prevalent in all social and cultural groups. There are, however, some noteworthy demographic trends with regard to substance misuse in the United States over the last several decades.

Age

With the exception of very young children, people of all ages abuse drugs. However, certain phases of life are significant risk factors for substance misuse. For instance, peer pressure can make adolescence a high-risk time for drug abuse, and adolescents' feelings of invincibility and immortality often exacerbate their risk-taking behaviors. Some drugs, including marijuana and the current "club drugs" (such as ecstasy and GHB), are used primarily by adolescents and young adults. Similarly, marijuana became increasingly popular among young people during the 1950s and 1960s when their sense of the relatively benign effects of the drug, in contrast to official government statements about its lurid dangers, fed the distrust of authority in the counterculture of the time (Sloman, 1998). Marijuana remains a popular drug among today's teenagers and young adults.

Most experts agree that substance misuse problems are underdiagnosed and undertreated among the elderly (Weintraub et al., 2002). Evidence suggests that substance misuse among geriatric populations centers on the unintentional misuse of prescription medications, but researchers warn that the number of elderly people abusing illicit drugs and alcohol will likely spike as the baby boom generation ages. Substance use problems among the elderly are of special concern given that treatment outcomes are poorer among people with cognitive impairment, and special treatment strategies are required for elderly persons with dementia (Patterson & Jeste, 1999).

Gender

In general, men are significantly more likely than women to abuse drugs and alcohol. A genetic predisposition to alcoholism appears to be more common in men than it is in women (an issue we'll return to shortly), and men are twice as likely to abuse amphetamines and related drugs (Lit et al., 1996). Interestingly, a shift in gender trends has occurred with regard to nicotine consumption. When tobacco use peaked in the 1950s, cigarette smoking was advertised as a highly masculine activity. Marlboro brand cigarettes became famous, and extremely profitable, thanks to ads featuring the "Marlboro Man," a ruggedly handsome cowboy riding the range, cigarette in mouth. When the feminist movement gained popularity in the 1960s and 1970s, cigarette manufacturers responded by advertising smoking as a "liberated" activity for women. Virginia Slims created a brand of cigarettes especially for the women and advertised using the slogan "You've come a long way, baby." Such aggressive marketing campaigns are believed to account for the dramatic recent increases in lung cancer rates among women (McDowell & Spitz, 1999).

Class

Large epidemiological studies have found that drug use in the United States has been, in general, positively correlated with being Caucasian, well-educated, and living in an urban environment in the northeastern and western regions of the country (Warner et

al., 1995). However, young, underemployed men have been specifically found to have much higher rates of alcoholism than the population at large (Dodgen & Shea, 2000).

An interesting, but tragic, demographic shift in cocaine use has occurred in recent decades. Throughout the 1970s and 1980s, cocaine was a glamorous society drug, snorted through rolled up hundred dollar bills. At its height, cocaine became so popular as a recreational drug that public health officials spoke of a "cocaine epidemic." Toward the end of the 1980s, rates of cocaine use dropped in high-income groups due, in part, to the cocaine-related deaths of stars like the actor John Belushi and the basketball star Len Bias. However, cocaine use subsequently soared in low-income, inner-city communities when it was discovered that cocaine could be mixed with common household chemicals and dried into a smokable form. This new product, called crack because of the crackling sound make by the impurities as it burned, could be bought for as little as $10 on the streets.

BRIEF SUMMARY

- Most commonly abused substances fall into one of three categories: stimulants, depressants, or hallucinogens.
- Depressants, which slow central nervous system (CNS) activity, include alcohol, sedative-hypnotics, and opioids.
- Stimulants, which increase CNS activity, include cocaine, amphetamines, nicotine, and caffeine.
- Hallucinogens, which cause altered sensory perception, include LSD, psilocybin, and mescaline.
- Other commonly abused substances include marijuana, ecstasy, PCP/ketamine, GHB, inhalants, and steroids.
- Demographic trends regarding substance misuse in the United States highlight the importance of ***context*** in understanding substance-related disorders.

Critical Thinking Question Do the current U.S. policies concerning which substances are legal and illegal seem appropriate to you? Why or why not?

EXPLAINING AND TREATING SUBSTANCE USE DISORDERS

Current ideas about how to explain and treat substance use problems have been shaped by historical and ideological factors in a way that is somewhat unique in the field of abnormal psychology. Today's dominant approach to explaining and treating substance use disorders is often referred to as the *disease model,* which argues that substance dependence is a disease akin to other medical diseases. The disease model's dominance does not necessarily result from its clear scientific superiority to other approaches—it has both strengths and limitations—but from complex historical, social, psychological, and economic forces (Epstein, 2001; Schaler, 2000).

Theories of the causes and treatment of substance use problems provide an excellent example of ***historical relativism*** because they have dramatically changed over time. In particular, explanations of substance misuse have tended to swing between the poles of *moral/legal* approaches and *disease/medical* approaches. As a society, we are still struggling to find a balanced approach to substance misuse. During colonial times, for example, alcohol was widely abused in America, but it was not considered addictive, and alcoholism was not considered a disease (Thombs, 1999). Rather, it was viewed as a moral problem, and many well-known figures such as Cotton Mather, John Adams, and Ben Franklin spoke out against drunks and taverns as "pests to society" (Rorabaugh, 1979). Dr. Benjamin Rush, the "father of American psychiatry" and a

Cultural and historical relativism

signer of the Declaration of Independence, first popularized an alternative view. Rush argued that alcohol was addictive, alcoholism a disease, and abstinence the only cure—very much in line with the contemporary disease model (Widiger et al., 1998). Rush's work led to the founding of an influential antialcohol organization, the American Temperance Society. This group started off promoting moderation in alcohol use but later advocated abstinence and the prohibition of alcohol. They viewed alcoholism as both a sin *and* a disease, reflecting the unresolved tension between moral and disease models, which still exists today (Levin & Weiss, 1994).

As psychological perspectives within the field of abnormal psychology flourished during the middle of the twentieth century, a third way of explaining and treating substance misuse, neither moral nor medical, emerged—the *psychological* approach. Psychological models tended to conceptualize substance misuse as a *symptom* caused by underlying motivational, emotional, cognitive, or learning problems. There is research support for the symptom model as an *explanation* for some cases of substance misuse. Shedler and Block (1990), in a landmark study, were able to test the symptom model by using a longitudinal study design. **Longitudinal** studies are those that follow their research subjects over an extended period of time; this is the only way to be certain about sequences of cause and effect that cannot be sorted out in correlational studies. Shedler and Block analyzed data on approximately 100 children growing up in Berkeley, California. The children were studied extensively at ages 7, 11, and 18. Among other things, Shedler and Block examined the subjects' patterns of drug use at age 18. They found that research participants who had drug problems at age 18 had consistently experienced emotional, family, and school problems since age 7. Furthermore, they found that most of the emotionally well-adjusted research participants experimented with drugs during high school without developing drug problems. Shedler and Block's findings support the symptom model of substance misuse because they indicate that substance misuse develops from underlying emotional problems, not from drug use per se. But it is important here to distinguish again between explanations and treatments. Just because drug problems may develop as a symptom of underlying emotional problems does not mean that the most effective way to treat drug problems is to focus exclusively on the underlying problems.

Longitudinal Research that studies subjects over time.

The symptom model, as a general approach to explaining and treating substance misuse, has fallen out of favor for a variety of reasons. First, people seem to have difficulty distinguishing between the symptom approach and the moral approach, causing many clients and their families to feel blamed and shamed by psychological approaches. Second, the symptom model has been unable to demonstrate that severe substance misuse (such as substance dependence) can be effectively treated by focusing exclusively on underlying psychological problems (Maunder & Hunter, 2001). The net result is that the disease model currently dominates the field of substance use disorders. Many forces support the disease model. The alcohol industry prefers the disease model because it implies that the biologically vulnerable individual, not the addictive substance, lies at the root of the problem. The medical system benefits because drug problems and their treatment fall within its purview. And many clients and their families feel that the disease model eases the shame and stigma of their problems, making it possible for more people to seek help, more research to be done, and better treatments to be developed. In fact, the entire *recovery movement*—a loose term for the plethora of self-help groups, such as Alcoholics Anonymous, that focus on helping people with substance problems—is based on the disease model. The proliferation of self-help and group treatments testifies to the importance of reducing the shame and stigma surrounding substance misuse (Bennett & Lehman, 2001; Buchanan & Young, 2000; Gribble et al., 2000).

While the disease model has many advantages, critics argue that it is more ideological than scientific (Robson, 1999; Skolnik, 2000) (see Box 9.3). For example, the disease model's tenet that total abstinence is the only appropriate goal for most clients

BOX 9.3 Is There Room for Free Will in the Disease Model?

"DON'T FORGET THE ADDICT'S ROLE IN ADDICTION" *by Sally L. Satel*

Dr. Sally Satel is one of the foremost critics of the disease model of substance dependence. In this Op-Ed piece from *The New York Times* she outlines her views.

From the first installment of Bill Moyers's widely publicized television special, "Addiction: Close to Home," on Sunday night, viewers learned that addiction is a chronic and relapsing brain disease.

The addict's brain "is hijacked by drugs," Mr. Moyers said that morning on "Meet the Press," adding that "relapse is normal."

These are the words of a loving father who was once at his wits' end over his son's drug and alcohol habit. But as a public health message, they miss the mark. First, addiction is not a brain disease. And second, relapse is not inevitable.

The National Institute on Drug Abuse, part of the National Institutes of Health, is waging an all-out campaign to label addiction a chronic and relapsing brain disease. It seems a logical scientific leap.

Obviously, heavy drug use affects the brain, often to a point where self-control is utterly lost—for example, when a person is in the throes of alcohol or heroin withdrawal or in the midst of a cocaine binge. Scientists have even identified parts of the brain that "light up," presumably reflecting damage, after long-term exposure to drugs. Yet as dramatic as the images of this phenomenon are, there is wide disagreement on what they mean.

"Saying these changes predict that someone will relapse amounts to modern phrenology," John P. Seibyl, a nuclear radiologist and psychiatrist at the Yale School of Medicine, told me. "We don't have any data linking these images to behavior, so how can we call addiction a disease of the brain?"

One of my colleagues puts it this way: You can examine brains all day, but you'd never call anyone an addict unless he acted like one. That's what is really misleading about the Moyers assertion that "addiction is primarily a brain disease"—it omits the voluntary aspects of an addict's behavior.

Addicts' brains are not always in a state of siege. Many addicts have episodes of clean time that last for weeks, months or years. During these periods it is the individual's responsibility to make himself less vulnerable to drug craving and relapse.

Treatment can help the addict learn how to fight urges and find alternative ways to meet emotional and spiritual needs. But will he take the advice? Maybe. More likely, he will begin a revolving-door dance with the treatment system. A recent study showed that only 1 in every 21 patients complete a year in a treatment clinic. To drop out generally means to relapse.

"Addicts make decisions about use all the time," Dr. Robert L. DuPont, a former director of the national institute, points out. Researchers have found that the amount of alcohol consumed by alcoholics is related to its cost and the effort required to obtain it. Two decades ago Lee Robins, a professor of psychiatry at Washington University in St. Louis, in a classic study of returning Vietnam veterans, found that only 14 percent of men who were addicted to heroin in Vietnam resumed regular use back home. The culture surrounding heroin use, the price and fear of arrest helped keep the rest off the needle.

Thus drug addicts and alcoholics respond to rewards and consequences, not just to physiology. Relapse should not be regarded as an inevitable, involuntary product of a diseased brain.

Turning addiction into a medical problem serves a purpose, of course. The idea is to reduce stigma and get better financing and more insurance coverage for treatment.

As a psychiatrist, I'm all for treatment, but when the national institute says that addiction is just like diabetes or asthma, it has the equation backward. A diabetic or asthmatic who relapses because he ignores his doctor's advice is more like an addict, as his relapses result from forsaking the behavioral regimens that he knows can keep him clean.

True, former addicts are vulnerable to resuming use—hence the "one day at a time" slogan of Alcoholics Anonymous. But they are by no means destined to do so. The message that addiction is chronic and relapse inevitable is demoralizing to patients and gives the treatment system an excuse if it doesn't serve them well.

Calling addiction a behavioral condition, as I prefer, emphasizes that the person, not his autonomous brain, is the instigator of his relapse and the agent of his recovery. The experts on Bill Moyers's program say that making addiction more like heart disease or cancer will reduce stigma. They're wrong. The best way to combat stigma is to expect drug users to take advantage of treatment, harness their will to prevent relapse and become visible symbols of hard work and responsibility.

This prescription does not deny the existence of vulnerabilities, biological or otherwise. Instead it makes the struggle to relinquish drugs all the more ennobling.

The New York Times, April 4, 1998

misusing substances has been highly controversial. Researchers who have suggested that controlled substance use might be a reasonable goal for some clients have come under fierce attack. Given the intense controversies about how to explain and treat substance misuse, it is especially important to keep in mind the core concept of ***multiple causality***. With substance misuse, as with other disorders, the use of multiple components in explanations and treatments is the most helpful and most complete approach (e.g., Brower et al., 1989).

Biological Components

We begin with biological components for several reasons. The first is the current dominance of the disease model and its close relationship with the biological perspective. Second, as psychoactive substances, all drugs have biological properties and effects that must be considered when trying to understand substance misuse. Third, many of the prominent symptoms of drug addiction, such as drug tolerance and withdrawal, have powerful biological features. Finally, the recent "decade of the brain" (a phrase used to describe the emphasis on brain research in the mental health field during the 1990s) brought about many new insights into the biochemistry of addiction.

The biological approach to explaining and treating substance misuse includes any explanation or treatment focused on the body and biological processes. The biological approach overlaps substantially, then, with the disease model, but the biological perspective and the disease model are not synonymous since the biological perspective can be integrated with other theoretical perspectives.

Despite its earlier roots, the origin of the disease model as a scientific perspective on substance misuse is usually credited to Jellineck (1946), who proposed that alcoholism could be characterized as a chronic, progressive, and incurable disease (Popham, 1976; Tarter et al., 1971). The emergence of the disease model spawned important research into the biology of addiction. For example, the discovery of *endorphins* (naturally occurring, or *endogenous,* opiates) in the 1970s led to speculation that some people might use drugs in order to compensate for inborn or acquired deficiencies in their neurochemistry (Berti, 1994; Erickson, 1996; Kosten, 1990). This hypothesis is sometimes referred to as a **self-medication** theory of substance use (Harvard Mental Health Letter, 2003)

Self-medication The abuse of substances to compensate for deficiencies in neurochemistry or to soothe unpleasant emotional states.

More recently, evidence has emerged that virtually all drugs affect the dopamine neurotransmitter system and activate the "reward pathway" that involves dopamine release into a brain area known as the *nucleus accumbens* (Berke et al., 2000; Hyman, 1994; Hyman et al., 2006). When the reward pathway is stimulated by drugs, the user experiences surges of pleasure, which account for the powerful reinforcing effects of many abused substances. Lasting memories of these intensely pleasurable experiences are recorded in the amygdala and hippocampus (partly due to drugs' effects on the excitatory neurotransmitter glutamate, which is involved in learning and memory), and these memories are easily activated by environmental reminders (Hyman et al., 2006; Nestler, 2005; see also section on Behavioral Components). With repeated drug use, normal dopamine and glutamate regulation is disrupted, other pathways to producing pleasure can become ineffective, and an individual is at risk for the development of an addictive cycle of drug craving, particularly during times of stress (Koob et al., 2004; Robinson & Berridge, 2001).

Biological researchers have also focused on genetic factors that may contribute to substance misuse. In general, roughly 50% of the vulnerability to drug addiction is considered to be due to genetic factors (Crabbe, 2002; Kreek et al., 2004). Our review of the role of inheritance in substance misuse will focus on the study of genetic factors in alcoholism, which have been the most thoroughly investigated.

As you know, the role of genetic factors in mental illnesses (and other behavioral traits) is generally explored through family, adoption, and twin studies. Family studies show that alcoholism runs strongly in families. For example, about one-quarter of the

sons of alcoholics become alcoholic themselves (Dodgen & Shea, 2000). However, this is the weakest form of genetic evidence, as families share environments as well as genes, and the shared environment could explain why alcoholism runs in families.

Much stronger evidence of a genetic role in alcoholism comes from adoption studies, which separate out, to a large extent, the influence of genes from the influence of the environment. Studies have shown that the adopted-out sons of alcoholics are three to four times more likely to become alcoholic than the adopted-out sons of nonalcoholics (Dodgen & Shea, 2000). Interestingly, the correlations between alcoholic mothers and alcoholic daughters are much lower, suggesting that the heritability of at least some forms of alcoholism may be greater in males. While we must keep in mind that adoption studies never totally eliminate the potential confound of environmental factors—because there is still a shared environment up until the adoption, and possible environmental influences from selective adoption placement and later contact with the biological family—these studies provide powerful evidence of a genetic role in alcoholism.

Further genetic evidence, along with an estimate of the relative strength of genetic and environmental influences, comes from twin studies. Recall that most twin studies are based on the comparison of concordance rates of identical (monozygotic) twins and fraternal (dizygotic) twins. In one large Swedish study, identical twins had a concordance rate for alcoholism of 58% compared to a rate of 28% for fraternal twins (Scandinavian countries are often the best source of genetic data because many of them have extensive medical databases on their entire populations) (McDowell & Spitz, 1999). Remember that the most likely explanation of this 30% difference is that identical twins, originating from a single, fertilized ovum that divides in two, share 100% of their genes. Fraternal twins, on the other hand, originating from two separate fertilized ova, share, on average, about 50% of their genes, just like regular siblings.

Other twin studies have shown similar results, supporting the hypothesis of a substantial genetic role in alcoholism (Cook & Gurling, 2001; Thombs, 1999). However, the evidence shows that the role of genetic factors in alcoholism is partial; otherwise the concordance rate for identical twins would be 100%. Genetic factors may predispose an individual to alcoholism (and other drug addictions), but environmental factors also play a significant role (Heath et al., 2001; Rose et al., 2001).

How, precisely, do genetic factors lead to alcoholism? While no one knows yet for sure—researchers keep hunting for the specific genes involved—several possibilities have been explored. One scenario suggests that genes determine a person's susceptibility to the reinforcing effects of alcohol—in other words, how much pleasure or tension reduction alcohol causes. For instance, some people may be biologically predisposed to find alcohol consumption especially pleasurable and/or to not experience aversive effects such as "hangovers." In addition, genes may affect general sensitivity to alcohol, including how quickly tolerance develops and how unpleasant withdrawal feels. These genetically determined biological factors may be rooted in individual differences within the limbic system and/or in the liver enzymes, which metabolize alcohol (Dodgen & Shea, 2000; Thombs, 1999). According to the **flipped switch theory** of addiction, genetic differences may explain differences in how quickly addiction develops. This theory suggests that after using a drug for a prolonged period, it is as though a biological switch is flipped and a person crosses the threshold from controlled use to addiction (McDowell & Spitz, 1999). However, the amount of use that causes the switch to flip varies a great deal from person to person, possibly as a result of predisposing genetic factors.

Flipped switch theory The hypothesis that continued use of a substance can precipitate a biologically based switch from controlled use to addiction.

Biological Interventions

Biological interventions are currently used for many substance misuse problems, and we have already mentioned some treatments as we reviewed the list of commonly abused substances. Here we describe the most common and successful biological interventions.

Alcohol Treatment of alcoholism usually begins with a medically supervised withdrawal period, which is carefully managed in order to prevent the development of seizures or other medically dangerous symptoms. Benzodiazepines, which are *cross-tolerant* with alcohol, are sometimes used to ease withdrawal symptoms. After withdrawal, medications can continue to play a role in the long-term treatment of alcoholism. One commonly used medication is *disulfiram (Antabuse),* which causes very unpleasant reactions such as nausea, headache, and flushing when combined with alcohol. (Disulfiram inhibits the liver enzyme *alcohol dehydrogenese,* which normally breaks down alcohol, so that a toxic byproduct accumulates.) Clients can choose to take disulfiram regularly to prevent impulse drinking. However, many clients who are initially willing to take disulfiram fail to stay on the medication, and controlled studies have not consistently demonstrated its effectiveness (Mariani et al., 2004). The most effective medical intervention for alcoholism appears to be the opiate antagonist, *naltrexone*, which reduces cravings when taken regularly (Srisurapanont et al., 2005). A recently approved monthly injection option has an advantage over the original dosing (a daily pill) in terms of compliance (Garbutt et al., 2005). Other medications that can be helpful in treating alcohol dependence include Acamprosate (which normalizes glutamate activity in the brain), various anticonvulsant medications (which affect GABA and dopamine transmission in addition to glutamate), and selective serotonin reuptake inhibitor (SSRI) antidepressants (Chapter 5) (Bouza, 2004; Gitlow, 2001; Kenna, 2004; Sadock & Sadock, 2001).

Opioids The first step in treating active addiction (for example, to heroin) is detoxification and medically supervised withdrawal, often using opiate *antagonists* such as naloxone and naltrexone. These antagonists block opiate receptors and thereby displace opiates, precipitating withdrawal (Boyarsky & McCance-Katz, 2000; Sadock & Sadock, 2001). In some cases, clients are switched to the synthetic opiate *methadone* and provided with other medications to minimize the withdrawal symptoms (van den Brink, 2003). The next step is to prevent relapse. The primary biological intervention for this "maintenance" phase is a controversial practice known as **substitution** or **maintenance therapy** in which addicts are provided with a safer opioid in a medically monitored setting. Substitution therapy works by reducing the craving for heroin without causing the intense high and "doped" effect of abused opiates. For many years, methadone, which must be taken daily at a clinic, has been the standard substitute, but recently two longer-acting substitutes *levo-alpha-acetyl methadol* and *buprenorphine* (byoo-pre-NOR-feen), a partial opioid agonist, have become available. Despite high hopes for buprenorphine, one recent study showed that clients on methadone stayed in treatment and remained abstinent longer than those on buprenorphine (Schottenfeld et al., 2005).

Substitution (or maintenance) therapy The practice of providing opioid addicts with a substitute opioid in a safe, medically monitored setting.

Substitution therapy This man is taking methadone, a synthetic opiate, at a clinic; substitution therapy remains a controversial treatment for opiate dependence.

A major controversy surrounding substitution therapy—part of a general debate between the *total abstinence* versus *harm reduction* approaches to substance misuse (e.g., Marlatt & Witkiewitz, 2002)—involves the ethics of substituting one addiction for another. However, most clinicians believe that the advantages of substitution therapy—such as the ability of the substitute opioids to ward off withdrawal without causing a debilitating "high," the use of oral rather than IV administration, thus eliminating needle sharing, and the longer action of the substitute opioids resulting in a less frequent dosing need—outweigh the disadvantages. Weaning from opiate substitutes remains the long-term goal, and many clients are eventually able to do so; experts estimate that about one-quarter of clients on methadone are eventually able to become abstinent (Harvard Mental Health Letter, 2004; see Table 9.12 for some data on long-term outcomes of heroin addiction). Interestingly, a recent research study suggests that good treatment outcomes with opiate addicts are not necessarily related to the addicts' motivation to change (as measured by the widely used Stages of Change Readiness and

TABLE 9.12 Twenty-Year Follow-up of Male Heroin Addicts

	TIME AFTER FIRST HOSPITALIZATION (YEARS)		
	5	10	18
Stable abstinence	10%	23%	35%
Dead	6%	11%	23%
Active narcotic addiction	53%	41%	25%
Uncertain status	31%	25%	17%

From Robson, 1999, based on Vaillant, 1988

Treatment Eagerness questionnaire). Contrary to the expectations of many substance abuse treatment professionals (and for reasons that are not yet clear), the addicts who scored highest on motivation to change in this large study had the worst treatment outcomes (Gossop et al., 2007).

Various psychotherapeutic interventions aimed at improving medication compliance and psychosocial adjustment are an important adjunct to biological interventions (Dodgen & Shea, 2000; see below on psychotherapies). Self-help groups, therapeutic communities, and individual psychotherapy for recovering addicts can be helpful during the maintenance phase and for the long-term process of dealing with the underlying physical and psychological causes of the addiction.

Cocaine

Many medications have been tested as possible treatments for cocaine addiction in the hopes that they might reduce cocaine cravings and restore neurotransmitter balances (Sadock & Sadock, 2001). Among these medications are tricyclic and SSRI antidepressants, dopamine agonists, opiate agonists and antagonists, and antiseizure medications. Unfortunately, the results of these efforts have been mixed, and the search for effective biological treatments for cocaine addiction continues (Elman et al., 2001).

Treatment of cocaine dependence is difficult and usually involves multiple interventions, including individual therapy and group therapy (Barber et al., 2001; Petry, Tedford, & Martin, 2001). Treatment typically begins with initiating abstinence from the drug and then proceeds to preventing relapse (Kerfoot, Sakoulas, & Hyman, 1996). Some treatment programs have been able to increase abstinence by paying patients to go to work at a job that tests for drugs on a daily basis (Silverman et al., 2001). Treatment may take place in an inpatient, outpatient, or partial hospital setting.

Nicotine

Quitting smoking can be extremely difficult. Mark Twain said it best: "It's easy to quit smoking; I've done it hundreds of times!" Fortunately, several relatively effective biological treatments for nicotine addiction have been developed in recent years. One strategy involves having the client ingest aversive agents, such as silver acetate lozenges, which create a bitter taste when combined with smoke (this is analogous to the use of disulfiram in alcoholism). Alternatively, nicotine can be delivered through chewing gum, nasal spray, inhaler, or a transdermal (skin) patch, allowing the client to avoid the health risks of smoking (West et al., 2001). These approaches are referred to as *nicotine replacement* strategies, and the user is then weaned off of nicotine altogether. Finally, the antidepressant bupropion (brand named Wellbutrin but renamed for this use as Zyban by the manufacturer) has shown promise as a treatment for smoking cessation, although its success over the long term has not been proven (Anton et al., 1999).

Behavioral Components

Behavioral perspectives make an important contribution to the explanation and treatment of substance misuse. The three pillars of behavioral theory—operant conditioning, classical conditioning, and social learning/modeling—all play an important part in explaining and treating substance misuse (Rutgers, 1996).

Behavioral Explanations

Tension reduction A behavioral explanation of substance misuse based on the ability of drugs to relieve distress (negative reinforcement).

In operant-conditioning terms, drugs can be highly *reinforcing* because they both induce powerfully pleasurable emotional states (positive reinforcement) and alleviate unpleasant ones (negative reinforcement). The ability of drugs to relieve distress (negative reinforcement) is sometimes referred to as the **tension reduction** motive for substance misuse. Interestingly, the physical, emotional, and social after-effects and consequences of drug use are often anything but pleasurable, raising questions about why, from an operant-conditioning perspective, people continue to use drugs. However, these *opponent processes* (Solomon, 1980)—the name for the general tendency for pleasure to be followed by an unpleasureable rebound, and vice versa—may ironically and unfortunately strengthen the urge to reuse a drug, since re-dosing becomes the most immediate way to relieve the negative opponent process. While research support for this theory has been mixed, some studies do support the general outlines of opponent process theory as it applies to drug addiction (e.g., Ettenberg, 2004; Kelley & Berridge, 2002).

Classical conditioning and substance use Drug paraphernalia, such as syringes, can become associated with drug effects through classical conditioning.

Classical conditioning—learning resulting from automatic mental associations—also contributes to substance misuse. For drug addicts, cues associated with their drug use, such as neighborhoods, friends, and drug paraphernalia, can become conditioned stimuli capable of producing strong cravings (Collins, Blane, & Leonard, 1999). Alcoholics Anonymous cautions recovering alcoholics to "stay away from people, places, and things" associated with drinking for precisely this reason. Even drug tolerance, usually thought of as a strictly biological phenomenon, is partly explained by conditioning (Thombs, 1999). This effect, known as *behavioral tolerance,* involves subtle forms of operant and classical conditioning that cause the drug user to experience decreased effects from the same dosage over time, leading to increased usage.

Finally, social learning—also referred to as vicarious learning or modeling (Bandura, 1977)—can be a powerful influence in drug abuse. Family learning contributes to the familial transmission of drug addiction above and beyond genetic factors (Zucker et al., 1995). For example, factors as basic as a child observing a parent who uses alcohol to cope with anxiety can influence the child's later behavior around alcohol. Other social causes of addiction include learning about drug use from peers and the media. Advertisers know the power of social learning well; alcohol and cigarette ads that feature attractive and famous people are based on the effectiveness of modeling (Robson, 1999).

Behavioral Interventions

Behavioral interventions for substance misuse are also based on classical conditioning, operant conditioning, and social learning/modeling (Brooks, Karamanlian, & Foster, 2001; Kim & Siegel, 2001; Taylor & Jentsche, 2001). For example, when drug cravings have become classically conditioned responses to various cues (such as a drug dealer's neighborhood or a hypodermic syringe), exposure to these cues in the absence of reinforcing drug use can be helpful in extinguishing cravings (Monti, Colby, & O'Leary, 2001). Therefore, some behavioral interventions involve exposing an addict to drug paraphernalia in a safe, sober clinical setting in order to break the conditioned bond between the paraphernalia and a drug high. Relaxation training can be a useful adjunct in these efforts to assist addicts in extinguishing conditioned craving; if the client can learn to relax while exposure takes place, he or she is less likely to experience cravings. In another classical conditioning

treatment technique known as **covert sensitization**, clients are taught to associate unpleasant emotional images with thoughts about drug use in order to pair drugs with aversive rather than rewarding consequences (Dodgen & Shea, 2000). For example, clients might be instructed to imagine what it would be like to have lung cancer whenever they start thinking about having a cigarette. Covert sensitization techniques are closely related to **aversion therapies**, in which drug use is connected to an unpleasant state such as nausea; the use of disulfiram (Antabuse) to prevent alcohol misuse is an example of aversion therapy.

A comprehensive form of treatment based on operant conditioning known as **contingency management** systematically rewards healthy behavior by the client (for example, with approval, increased privileges, or material rewards) and punishes or withholds rewards for drug-oriented behavior. One popular version of contingency management provides clients with vouchers, which can be exchanged for goods and services, every time they have a clean urine drug test. With cocaine abusers, contingency management has been shown to be helpful as part of a comprehensive community intervention including counseling, recreation, and social support (Thombs, 1999), and opiate addicts in contingency management programs were more likely to remain in naltrexone treatment or to maintain abstinence in two recent studies (Carroll et al., 2001; Shottenfeld et al., 2005). While research generally supports the effectiveness of contingency management interventions with drug abuse clients (Bigelow, 1999; Petry et al., 2005; Wong et al., 2004), the high cost of these interventions, and questions about their long-term effectiveness, remain as obstacles.

Social learning interventions include everything from social skills and drug refusal training to anger management and support for appropriate life planning. Two specific treatment models based on social learning principles provide useful illustrations. Marlatt and Gordon's (1985) *relapse prevention model,* for example, focuses on helping clients to identify and avoid high-risk situations in order to prevent relapse, while simultaneously promoting healthier modes of coping with stress. Another treatment model, known as *behavioral self-control training* (BSCT), emphasizes careful recording of drug use patterns, development of social skills, and planning of healthy activities (Hester & Miller, 1995). BSCT seems to help a small but significant percentage (15–25%) of problem drinkers to achieve controlled drinking (Thombs, 1999).

Because substance misuse poses a major public health problem around the world, public health officials have encouraged campaigns aimed at the *prevention* of substance misuse in addition to promoting the development of effective treatments. Prevention efforts aimed at instilling antidrug attitudes and peer pressure resistance skills in children, based mostly on behavioral and cognitive principles, have become commonplace in elementary, middle, and high schools in the United States. The most widely known of these, the *DARE* (Drug Abuse Resistance Education) program, was developed by Daryl Gates, the former police chief of Los Angeles. The DARE program has been heavily supported by law enforcement organizations, and it claims to reach 5 million children each year (DARE America, 1991). However, as recent research on its effectiveness is mixed, the program has become controversial (Fisher & Harrison, 1997; Lillienfeld, 2007; West & O'Neal, 2004).

Covert sensitization Behavioral intervention involving pairing unpleasant emotional images with unwanted behaviors, such as drug use.

Aversion therapy Behavioral technique involving pairing an unwanted behavior with an aversive stimulus in order to classically condition a connection between them.

Contingency management The use of reinforcements and punishments to shape behavior in adaptive directions.

DARE These fifth graders are receiving drug prevention instruction through the DARE program; research on its effectiveness has shown mixed results.

Cognitive Components

Cognitive approaches to explaining and treating substance misuse began proliferating as the "cognitive revolution" swept through psychology in the 1970s. In one line of research, cognitive psychologists demonstrated that cognitions are heavily involved in the subjective experience of drug effects. For example, subjects' *expectancies* about how they will feel when drinking powerfully influence how they actually feel (Thombs,

1999). Thus the expectation of feeling good, relaxed, or less distressed can be an important motive for drug use and a self-fulfilling prophecy.

Accordingly, a number of researchers have focused on the importance of assessing drug use expectancies among populations at risk for substance abuse (e.g., Dimeff et al., 1999; Houben & Wiers, 2007; Meier et al., 2007). In addition, researchers have found that, among problem drinkers, thoughts involving a fear of negative social evaluation may precipitate drinking episodes and relapses (Collins et al., 1999). For example, a client with alcoholism who is struggling to abstain from drinking is likely to have more difficulty if he is about to go on a first date about which he is feeling anxious and insecure. In general, poor self-esteem and low *self-efficacy* (self-effectiveness) expectations seem to be risk factors for drug problems (Robson, 1999). Ellis and his colleagues in the *Rational Emotive Therapy* (RET) school of cognitive clinical psychology have established that stress and negative thinking patterns can contribute to relapses (Ellis & MacLaven, 1999). Cognitive theorists also use their general emphasis on negative **cognitive schemas** and resulting **negative automatic thoughts**, in explaining substance misuse. For instance, the schema "Drugs are the only reliable friend" may produce negative automatic thoughts such as "I'm lonely, so why not get high?"

Cognitive schemas Mental models of the world used to organize information.

Negative automatic thoughts Negative thoughts generated by negative cognitive schemas.

Cognitive restructuring Therapy techniques that focus on changing irrational and problematic thoughts.

Finally, social learning approaches, which we also discussed in the Behavioral Components section, have a significant cognitive element. Social learning, or modeling, involves cognitive processes that influence self-efficacy expectations and self-esteem (Bandura, 1977). For example, children of alcoholics are at risk for alcoholism not just because of behavioral learning involved in imitating their parents' behavior but also because of the dysfunctional cognitions (such as, "If dad drinks, it can't be so bad") they may develop from observing their parents' drinking.

Cognitive Interventions

Some of the relapse prevention treatments described in the Behavioral Components section include a cognitive component, and the two perspectives are often combined in substance abuse treatment. The cognitive component emphasizes **cognitive restructuring** in the form of challenging and changing distorted cognitive schemas, teaching clients improved social skills, helping them to identify relapse dangers, and improving their poor self-efficacy expectations. In cognitive therapy for drug abuse, the therapist assists the client in examining drug-related cognitive schemas (such as, "drugs aren't that dangerous"), challenging automatic negative thought patterns (such as, "I'm boring when I'm sober"), and building positive coping self-statements (for example, "I can recover") (Dodgen & Shea, 2000). One particularly important area of intervention involves targeting positive drug or alcohol expectancies because they are so strongly correlated with drug abuse (Meier et al., 2007). For example, an influential and effective intervention for college students at risk for binge drinking (the Brief Alcohol Screening and Intervention for College Students, or BASICS) focuses in part on changing positive alcohol expectancies (Dimeff et al., 1999).

Sociocultural and Family Systems Components

Sociocultural and family systems perspectives focus on the role of larger social institutions in causing and treating substance misuse problems. We begin with an overview of the sociocultural model, which takes the broadest perspective on substance use disorders, and then we look more closely at issues involving the specific role of the family.

Sociocultural Components and Interventions

The sociocultural perspective emphasizes that substance misuse problems are strongly correlated with social variables. For example, we have already noted that young,

underemployed, urban men have much higher rates of alcoholism than the population at large. Interestingly, high-stress professions such as the medical and dental fields also appear to have higher rates of substance abuse (Dodgen & Shea, 2000). U.S. soldiers fighting in the Vietnam War had high rates of opiate addiction while in Vietnam, but relatively few of them continued as opiate users after they returned home (Robson, 1999). All of these examples illustrate the profound effects of specific social circumstances on drug use and abuse. Obviously, these sociocultural forces cannot entirely explain substance misuse, since not all individuals in these high-risk groups develop drug problems. However, evidence suggests that social stresses and cultural pressures in these high-risk groups play a partial role in the etiology of substance misuse. Accordingly, sociocultural theorists encourage the engagement of the client's social network of friends and family in treatment, an approach known as **network therapy** (Galanter & Brook, 2001).

Network therapy A treatment for substance misuse that emphasizes engagement of the client's social network of friends and family in treatment.

Family Systems Components and Interventions

Family systems theorists have focused on certain family patterns that seem to be associated with substance misuse. As we have seen, the family systems approach analyzes the boundaries, subsystems, and homeostatic forces within families. Families of substance abusers appear to have certain characteristic patterns of interaction, including family-wide *denial, codependent* relationships, and *enabling* of the substance abuser (Dodgen & Shea, 2000). **Codependency**, a concept that has become widely used, refers to a relationship in which family members unconsciously collude with, or *enable,* a family member's substance misuse, even though they may consciously oppose it (Fisher & Harrison, 1997). For example, the wife of an alcoholic might complain about her husband's drinking, yet call in sick for him at work and assume his responsibilities at home.

Codependency A relationship in which family member(s) unconsciously collude with the substance misuse of another member even though they may consciously oppose it.

Denial and other family-wide defense mechanisms often keep substance abuse a highly protected secret within families. As a result, families may seek treatment with a focus on some other problem in another family member. Family therapists are therefore careful not to focus on the **identified patient** (the family's perception of who in the family is troubled), and, instead, attend to the possibility that the family is really organized around protecting the secret addiction of a substance abuser (McDowell & Spitz, 1999). Family therapy in these situations focuses on confronting family defenses, such as denial and codependency, and establishing more appropriate family roles and boundaries (Dodgen & Shea, 2000).

Identified patient In family therapy, the family's perception of who in the family is troubled.

Psychodynamic Components

The psychodynamic perspective on substance misuse was the first comprehensive psychological approach to addiction, and it is a foundation for many other contemporary psychological approaches. Currently, however, the psychodynamic perspective has a negative reputation in some parts of the "recovery movement." This is partly because the psychodynamic model is somewhat at odds with the disease model, and also because some clinicians have inappropriately used older psychodynamic theories and techniques to treat addiction, with poor results. However, the psychodynamic perspective does have a great deal to offer to the understanding and treatment of substance misuse, particularly as psychodynamic theory has been updated and revised (McDowell & Spitz, 1999). Although it is true that traditional psychodynamic interventions alone are not considered effective for substance dependence, psychodynamic principles have an important role in explaining and treating substance misuse (Allen, 2001; Felix & Wine, 2001; Herman, 2000).

Like the other psychological approaches, psychodynamic theory views substance misuse as a symptom, or result, of other forces and problems within the client. As psychodynamic theory has changed over the past century, ideas about the specific emotional factors causing substance misuse have shifted. During the early psychodynamic period, clinicians emphasized the addict's strong oral phase needs for comfort and dependency, and devotion to pleasure seeking. The addict was seen as someone who was emotionally fixated at an early stage of childhood, seeking nurturance and pleasure at all costs. As psychodynamic theory developed, more complex ideas about addiction arose in connection with the newer emphasis on ego and superego development, object (interpersonal) relations, attachment issues, and self-esteem. Current psychodynamic explanations, for example, tend to view substance misuse as a maladaptive coping (or defense) strategy. In other words, drug abuse is viewed as a way of numbing or avoiding painful emotions that the ego cannot tolerate. For example, clients with severe substance use problems may have been overwhelmed by traumatic experiences and may not have developed adequate ego skills to cope effectively with them. Such clients often have profound difficulty identifying and verbalizing their feelings, a condition sometimes referred to as **alexithymia**, and frequently numb intense emotions through substance misuse (Koocher, Norcross, & Hill, 1998; Krystal, 1979). In this sense, current psychodynamic theorists use a *self-medication* model to explain substance misuse, but they emphasize the emotional deficits and painful experiences that are being "medicated" with drugs (McDougall, 1980).

Alexithymia Profound difficulty in identifying and verbalizing emotions.

Along with their emphasis on emotion-regulation problems as the underlying cause of the symptom of substance misuse, psychodynamic clinicians focus on the role of defense mechanisms in the development and maintenance of addictions. For example, the addict protects himself from painful awareness of the problems and feelings surrounding his addiction through the defense mechanism of *denial*—a refusal to acknowledge an obvious reality. Denial is so central to the process of addiction that it has become a cornerstone of most theoretical explanations and interventions (Herman, 2000; Shaffer & Simoneau, 2001; Miller & Flaherty, 2000). Another prominent defense mechanism in addictions is *omnipotent thinking*—the wishful belief that one has control over uncontrollable situations. Addicts often seem to believe that they can control and master a drug that actually has taken control of them (McDowell & Spitz, 1999). As the ancient Japanese proverb puts it: "First the man takes a drink, then the drink takes a drink, then the drink takes the man."

Psychodynamic Interventions

Because substance addictions usually require structured, directive therapies, often with a biological component, traditional psychodynamic interventions are rarely a primary intervention for substance dependence. However, psychodynamic interventions can have an important adjunctive role in the treatment of substance dependence, and psychodynamic interventions are often useful in the treatment of less severe cases, such as individuals diagnosed with substance abuse (Harvard Mental Health Letter, 2005; Herman, 2000). In these cases, focusing on the underlying emotional problems contributing to the substance misuse can be effective (Khantzian et al., 1990; Reder, McClure, & Jolley, 2000). Psychodynamic interventions for substance misuse have several goals. In keeping with the self-medication hypothesis, interventions aim at helping the individual cope more effectively with whatever painful emotions are being avoided through drug use. The therapist attempts, through the use of interpretations and a supportive emotional relationship, to help the client develop better skills for dealing with troublesome emotions. Psychodynamic interventions also aim to improve self-esteem, self-

acceptance, ego skills, and relationships in order to reduce the need for drug use (Allen, 2001; Felix & Wine, 2001; Leeds & Morgenstern, 1996).

The Twelve-Step Approach

The most prevalent current approach to treating substance misuse does not fit neatly into any of the theoretical perspectives we have discussed, though it relies on principles from many of them. Today's dominant approach is a collection of self-help treatments based on the Alcoholics Anonymous **twelve-step method**, which is at the core of the "recovery movement." Alcoholics Anonymous was born in 1935 when two men, Bill Wilson, a stockbroker, and Bob Smith, a surgeon, sat down one afternoon and talked together about their struggles with alcoholism. Wilson had been trying valiantly to stay sober after years of problem drinking, and he had a religious awakening after reading William James's classic book, *The Varieties of Religious Experience.* The combination of this experience with the recognition by the two men of the helpful power of their mutual support, empathy, and advice led them to co-found Alcoholics Anonymous (Fisher & Harrison, 1997; McDowell & Spitz, 1999). Since then, the organization has grown exponentially, based on the simple principles of Wilson and Smith's initial conversations, which are embodied in the "Twelve Steps" (see Table 9.13). The twelve-step principles now form the foundation of the many support groups that deal with a wide variety of addictive problems.

Twelve-step method A popular self-help approach to substance misuse problems based on the twelve-step recovery process of Alcoholics Anonymous.

The actual process of Alcoholics Anonymous (AA) and other twelve-step meetings consists of a first-name only sharing of experiences and encouragement to follow the twelve steps. In addition to meetings, each participant works with a sponsor (an

Alcoholics Anonymous These individuals are participating in an AA meeting as part of an alcohol treatment program. AA appears to be one of the most effective treatments for alcoholism.
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TABLE 9.13 The Twelve Steps of Alcoholics Anonymous

1. We admitted we were powerless over alcohol and that our lives had become unmanageable.
2. Came to believe that a Power greater than ourselves could restore us to sanity.
3. Made a decision to turn our will and our lives over to the care of God as we understood Him.
4. Made a searching and fearless moral inventory of ourselves.
5. Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.
6. Were entirely ready to have God remove all these defects of character.
7. Humbly asked Him to remove our shortcomings.
8. Made a list of all persons we had harmed, and became willing to make amends to them all.
9. Made direct amends to such people wherever possible, except when to do so would injure them or others.
10. Continued to take personal inventory and when we were wrong promptly admitted it.
11. Sought through prayer and meditation to improve our conscious contact with God as we understood Him, praying only for knowledge of His will for us and the power to carry that out.
12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs.

experienced AA member) who is available to offer advice and support on the challenging path to sobriety. Throughout the process, AA embodies the disease model of addiction, and participants are confronted when they are "in denial" about the severity of their problems or believe that they are in control of their substance use. The AA model draws on some of the theoretical perspectives described above, even though it was developed independently by laypeople. For example, the AA model includes cognitive-behavioral (such as contingency management and identification of relapse dangers), humanistic and psychodynamic (empathy, ego support), and sociocultural (social support) principles, along with its core focus on spirituality (Brower et al., 1989; McDowell & Spitz, 1999; Miller & Kurtz, 1994).

Currently, there are also alternative self-help groups that make use of some aspects of the twelve-step method but reject parts they find objectionable, such as its religious elements or its endorsement of the disease model with its goal of total abstinence from alcohol and drugs. Rational Recovery, one such group, uses the principles of Ellis's Rational Emotive Therapy as an alternative to some aspects of the twelve-step approach (Fisher & Harrison, 1997).

As the popularity of the twelve-step approach has grown, researchers have been eager to evaluate its effectiveness and to compare it to other treatments. Overall, studies of AA's effectiveness have shown mixed results (e.g., Ferri et al., 2006), but it is difficult to study the program rigorously because of the anonymity of the group members, the relatively high dropout rates in AA, and the related fact that clients who do participate in AA are not a random sample of alcoholics (McCrady & Miller, 1993). One recent, well-controlled prospective study of 2300 veterans was able to demonstrate that participation in AA was directly related to subsequent decreases in drinking by looking at whether the drinking changes occurred before or after joining AA (McKellar et al., 2003). In addition, one influential government study carefully compared the twelve-step approach with two other popular treatments. Project MATCH (an abbreviation for Matching Alcoholism Treatment to Client Heterogeneity), sponsored by the National Institute for Alcohol Abuse and Alcoholism (NIAAA), was so named because one of its research questions was whether certain clients did better when matched with certain treatment approaches. In Project MATCH, clients were randomly assigned either to a program facilitating and encouraging attendance at AA meetings, to a cognitive-behavioral treatment, or to *motivational enhancement* therapy, a treatment based on *motivational interviewing* (see below) that addresses ambivalence about drinking in a nonconfrontational way (Burke et al., 2003; Zywiak, Longabough, & Wirtz, 2002). While all of the treatments were effective—after 12 weeks of treatment, most clients had improved, and they had maintained improvement at a 15-month follow-up (Thombs, 1999)—four sessions of motivational enhancement therapy led to as much improvement as twelve sessions of the other therapies (Harvard Mental Health Letter, 2004). Overall, the effectiveness of all three treatments is good news on many levels. Not only does it provide hope for alcoholics and their families, but also for our society, given the enormous human and economic costs of alcoholism. There is also cause for optimism in the results of recent studies that show that a surprisingly large percentage of alcoholics may be able to achieve lasting recoveries on their own, without formal treatment. In a German study, 90% of former alcoholics remained sober for two years without treatment, and a large study in the Netherlands found that 74% of clients formerly dependent on alcohol were doing well, without treatment, after three years (de Bruijn et al., 2006; Rumpf et al., 2006). From these studies, experts hope to learn about the techniques individuals have successfully used in overcoming substance use problems on their own and to utilize these techniques in formal treatment programs.

Multiple Causality and the Connection Between Mind and Body in Substance Use Disorders

Multiple causality

In keeping with the core concept of ***multiple causality***, most experts now agree that the most effective explanations and treatments for addiction draw on multiple theoretical perspectives. For example, explaining and treating alcohol dependence in a college student requires consideration of genetic vulnerability (biological), peer influences (sociocultural), the reinforcement provided by alcohol (behavioral), cognitive expectancies about drinking (cognitive), and the possibility of self-medicating painful emotions (psychodynamic). Similarly, as we have noted, the success of AA seems to be due, in part, to its use of principles associated with several different theoretical approaches. Increasingly, *multimodal* explanations and treatments for substance misuse integrate these different perspectives and view them as congruent (or overlapping) rather than competing. For instance, the National Institute on Alcoholism and Alcohol Abuse conducted a large study called Combining Medications and Behavioral Interventions (COMBINE) in which 1400 clients with alcohol dependence were treated with combinations of medical and psychological interventions. All of the combinations were effective, but the most effective (at least in the short term) was a combination of naltrexone or behavioral interventions combined with weekly supportive meetings with a doctor or nurse (Anton et al., 2006)

Another good example of a multitheoretical treatment approach for substance misuse is a popular technique called **motivational interviewing**, which uses a blend of humanistic, cognitive-behavioral, and psychodynamic principles. In motivational interviewing, therapists work with clients' ambivalence and conflicts about change in an empathic, exploratory manner, in an effort to create conditions in which clients can move toward greater motivation for changing problematic behaviors such as drug use (Miller & Rollnick, 2002). Motivational interviewing has been shown in controlled studies to be an effective component of treatment for substance use disorders and other behavioral problems (e.g., Amrhein et al., 2003; Burke et al., 2003; Miller et al., 2003)

Motivational interviewing A multimodal therapy method for enhancing motivation to change by exploring and resolving ambivalence.

Mind-body connection

In addition, substance use disorders highlight the ***connection between mind and body***, and we have seen that understanding this connection is crucial to explaining and treating substance use problems. For example, neurochemical deficits can create subjective states of drug craving, and behavioral responses to these cravings, such as drug use, in turn, can cause further changes in neurochemistry that can sustain the vicious cycle of addiction. We return now to the case vignettes of substance misuse from the beginning of the chapter to further illustrate these core concepts.

BRIEF SUMMARY

- For a variety of reasons, the disease model is currently the dominant paradigm for explaining and treating substance use disorders, even though the symptom model has some merit.
- Biological explanations of substance use disorders include the hypothesis that drug use is a form of self-medication for biochemical deficiencies, and an emphasis on the role of genetic factors in substance use disorders. Biological interventions include the use of aversive agents that make drug use noxious, substitution therapies, and the provision of medications that can help reduce drug cravings.
- Behavioral and cognitive perspectives highlight the role of tension reduction, classical conditioning, and negative beliefs and expectancies in substance use disorders. Classical conditioning interventions such as covert sensitization, operant conditioning techniques such as aversion therapies and contingency management, and cognitive restructuring methods are among the important behavioral and cognitive treatment components.

- Sociocultural and family systems approaches emphasize social and family dynamics that can contribute to substance misuse. Social support and family treatment can also contribute to recovery from substance use disorders.
- Early psychodynamic explanations for substance misuse focused on the hypothesis of emotional fixation at an oral, pleasure-addicted developmental stage. Current psychodynamic theorists view substance misuse as a maladaptive defense mechanism for coping with painful emotions. While psychodynamic interventions by themselves are not considered effective for treating serious substance misuse, psychodynamic concepts are an important component of many treatments.
- Twelve-step models, such as the Alcoholics Anonymous approach, combine the principles of many theoretical perspectives with a spiritual emphasis. Multimodal approaches to substance misuse are increasingly embraced by experts, highlighting the core concepts of ***multiple causality*** and the ***connection between mind and body***.

Critical Thinking Question The AA approach to treating substance dependence, developed and conducted by laypeople, seems to be at least as effective as treatments designed by mental health professionals. What components seem to you to account for its effectiveness?

CASE Vignettes

Treatment

Rob • Substance Abuse

Rob decided to seek therapy after receiving a warning from his boss that his performance at the store was not up to par. Rob was upset about this, as he was intent on keeping his job. Still, Rob was ambivalent about seeking help. He was worried that a therapist would focus on his pot use and tell him that he had to quit. Rob wasn't sure that quitting would solve his work problems, and he was reluctant to give up something he enjoyed so much. Nevertheless, he agreed to meet one time with a therapist when his father encouraged him to do so.

The therapist suggested that Rob complete a standard three-session evaluation, so that they could thoroughly review his situation and decide what might be helpful. The subject of Rob's marijuana use did come up in the first session. Rob told the therapist that he was smoking only on weekends, although he actually was getting high occasionally during the week as well. Rob's therapist noticed that Rob seemed to have trouble describing his emotions, and stayed away from any troubling subjects, such as his parents' divorce. The therapist mentioned to Rob that sometimes drug use is a way to "numb out" difficult feelings, and that he might find himself tempted to smoke even more as painful feelings came up in therapy. She encouraged Rob to begin keeping a journal of his feelings and his urges to get high, and to try to substitute writing for pot smoking.

Rob felt very uncomfortable after the first session. He decided that he could handle his problems on his own and that he didn't need professional help. When he told a friend about his decision, however, Rob's friend urged him to at least finish the evaluation. Rob agreed to do so, and felt more comfortable after seeing the therapist again and finding that she was genuinely interested in helping him. After three sessions, they agreed that it would make sense to meet once weekly for a while to try to help Rob get back on track.

Rob found that the sessions and the journal writing were more interesting and worthwhile than he'd expected, and he decided that he wanted to meet twice each week to further his progress. Rob was surprised to find that his thoughts kept returning to his parents' divorce, even though he believed he had "put that behind" him. Rob's therapist helped him to realize that he still had intensely sad, angry, and guilty feelings about the divorce that he had been avoiding by getting high. As they examined these feelings, it became clear that many of Rob's feelings were based on misperceptions of the situation, such as Rob's idea that he should have been able to keep his parents happy. As Rob became better able to notice, identify, and tolerate his feelings, his urges to smoke pot decreased, and he felt more in control of his moods. Five months after starting therapy, Rob commented that his head seemed much "clearer," and Rob's boss complimented him on his much-improved job performance.

CASE DISCUSSION • Substance Abuse

Rob was clearly experiencing negative consequences from his marijuana use, but the therapist believed that he had not crossed the threshold from abuse to dependence. Accordingly, she felt that it would be possible and appropriate to treat the marijuana use as a symptom of Rob's underlying emotional conflicts, especially the avoidance of his feelings about his parents' divorce. She used a variety of psychodynamic (exploring feelings) and cognitive-behavioral techniques (journal writing; challenging beliefs) to help him learn to understand and tolerate his feelings without having to rely on pot smoking to "numb out."

Dr. Bryce • Substance Dependence

Dr. Bryce was furious when the psychologist continued to question her about her alcohol use. Finally, she stormed out of the session, yelling "I came here for help with my case against the University, not for unwanted advice about my so-called alcoholism!" Like many addicts, Dr. Bryce might never have admitted her problem or sought treatment for it on her own. However, a group of her friends and colleagues had been very worried about her drinking for years. Several of them tried to approach her about it and were rudely rebuffed. Now, after hearing from her about her session with the psychologist, and seeing her preparing to further destroy her career by suing the University, Dr. Bryce's friends decided to act. They contacted a local therapist who agreed to act as a facilitator for an "intervention." After some careful planning, eight friends arrived at Dr. Bryce's house with the facilitator. They told her that they cared about her, were concerned about her, and were determined that she get immediate help. Dr. Bryce was enraged and humiliated. She said that she would only promise to think about it and insisted that they leave. As they had planned with the therapist, the friends refused to leave, insisting that they were going to take her directly to an inpatient treatment center. After two hours, Dr. Bryce capitulated.

At the hospital, a team of substance abuse specialists evaluated Dr. Bryce. They noted that she met all the criteria for alcohol dependence of several years' duration and began developing a treatment plan. The first step was detoxification, which, given the severity and duration of Dr. Bryce's alcoholism, would require careful medical supervision. To ease the withdrawal process, Dr. Bryce was put on benzodiazepines. She was also required to attend AA meetings. After two weeks in the hospital, Dr. Bryce had completed the detox program. She was transferred to a day treatment program, which included therapy, AA meetings, and disulfiram (Antabuse) for those clients who agreed to it. Dr. Bryce refused to try disulfiram. She remained bitter about having been forced into treatment, even though she admitted that she felt healthier without alcohol. Over the next several months, Dr. Bryce wavered between sobriety and relapse. She attended AA meetings sporadically and began drinking again in between meetings. Eventually, she found an AA sponsor whom she liked and trusted. With her sponsor's help, Dr. Bryce began attending meetings more regularly and admitting that she still had a problem. She acknowledged that controlled drinking was not a realistic option for her. By the first anniversary of the "intervention," Dr. Bryce had been completely sober for six months.

CASE DISCUSSION • Substance Dependence

Dr. Bryce's alcohol use had reached the point of severe dependence, but her extreme denial prevented her from seeking treatment; she required the intervention of friends before treatment could begin. Given the intensity and long duration of her drinking, careful management of the withdrawal process was critical. A medical, hospital-based program of supervised withdrawal was necessary, after which it was possible for Dr. Bryce to be treated on an outpatient basis. Her motivation for treatment often wavered, and her compliance was inconsistent, as is often the case with people who are substance dependent. Eventually, Dr. Bryce had a positive response to the AA process, especially after bonding with a sponsor. Like so many others who have struggled with alcoholism, Dr. Bryce was finally able to acknowledge her problem and reach sobriety primarily through the help of AA.

Chapter Summary

- In defining pathological drug use, experts prefer the term *substance* instead of *drug* because it conveys the idea that drug use is universal and misuse can involve legal or illegal substances. Definitions and classifications of substance misuse are ***culturally and historically relative***.
- The current method for defining pathological substance use assesses the relationship between the user and the substances they use; a relationship causing distress or impairment is viewed as pathological regardless of whether the substance is legal or illegal. This method, which highlights ***the importance of context*** in defining substance misuse and the ***continuum between normal and abnormal*** substance use, is preferable to earlier quantitative approaches to defining pathological substance use.
- The DSM-IV-TR includes two main diagnoses of pathological substance use. Substance abuse refers to situations in which a person's use of a substance is causing negative consequences for him or her. Substance dependence, the more severe diagnosis often referred to as addiction, involves not just negative consequences but also compulsive use of the substance, loss of control over its use, and, in some cases, physical or psychological dependence. One ***limitation*** of these diagnoses is that it is not entirely clear how addiction to substance use differs from "addictions" to other activities such as work, sex, or gambling.
- Biological, behavioral, cognitive, sociocultural, family systems, and psychodynamic factors are all involved in substance misuse, and each perspective has contributed important treatment strategies.
- Multimodal approaches, which endorse the principle of ***multiple causality*** of substance misuse and attend to the ***connection between mind and body***, are increasingly the norm in explaining and treating substance use disorders.

APPENDIX: HISTORIES OF SOME COMMONLY ABUSED SUBSTANCES

Opioids

Because of their powerful effects, opioids have been used and misused for centuries, for both medicinal and recreational purposes. The history of opioid use and abuse is a fascinating story in its own right. As you will see, there have been enormous changes over time and across cultures in the way that the opioids have been viewed, used, and regulated—another illustration of the core concept of ***cultural and historical relativism***.

The use of *opiates* (the term for substances derived directly from the opium poppy) dates back at least 3500 years. Evidence of opium use has been found in ancient Sumerian, Greek, Egyptian, Persian, Roman, and Arabic cultures. During the last two millennia, the use of opiates and the cultivation of poppies spread around the globe as a result of conquest and trade. By the beginning of the nineteenth century, opium use was widespread across Europe, the Middle East, and the Far East.

During the 1800s, several important scientific advances occurred regarding the opioids, leading to increasing medical and recreational uses of these drugs. In 1806, a 20-year-old German pharmacist's assistant named Frederich Sertuerner published a paper demonstrating that he had isolated the primary active ingredient in opium. He named this ingredient morphine, after Morpheus, the Greek god of dreams. Pure morphine was 10 times more potent than opium. It became one of the most important medications in the history of medicine, providing powerful pain relief, and Sertuerner received the French equivalent of the Nobel Prize for his work (Ray & Ksir, 2002).

Twenty-six years later, the second most important ingredient in opium, *codeine,* was isolated. It, too, has played an enormous role in medical history because of its analgesic and cough suppressive properties. Finally, in 1874, chemists at the Bayer Pharmaceutical Company slightly altered the chemical structure of morphine and created a new compound, which was three times more potent than morphine and acted more quickly. In 1898, Bayer gave this new chemical the brand name Heroin (from the German word "heroisch," meaning powerful) and marketed it as a nonaddicting substitute for codeine (Hirsch, Paley, & Renner, 1996; McDowell & Spitz, 1999; Robson, 1999). The highly addictive nature of heroin was not understood until several years later.

In the meantime, Alexander Wood, a Scottish surgeon, had invented the hypodermic syringe (needle). This transformed both medical practice and substance misuse because it created a more potent intravenous method for the delivery of substances that previously could only be ingested, smoked, or absorbed through the skin. Concurrent with these scientific discoveries, opiate use was becoming increasingly widespread. In 1805, a 20-year-old Englishman bought some opium for a toothache in the form of laudanum, a common, legal, over-the-counter preparation typically containing opium, spices, and some alcohol. Laudanum translates from the Latin, meaning "worthy of praise." The young man described his experience as follows:

> *I took it: and in an hour, O heavens! . . . Here was a panacea . . . for all human woes; here was the secret of happiness, about which philosophers had disputed for so many ages, at once discovered; happiness might now be bought for a penny, and carried in the waistcoat pocket; portable ecstasies might be had corked up in a pint-bottle; and peace of mind could be sent down by the mail.*
>
> *Quoted in Ray & Ksir, 2002 (p. 337)*

This young man, Thomas De Quincey, later became famous as the author of a widely read article, "The Confessions of an English Opium Eater" (laudanum was actually a liquid, but consumption of it was referred to as "opium eating"), in which he described his life as an opium addict. He was by no means unusual in nineteenth-century England. Opium was used then like aspirin is now. Many famous English writers were regular users, including Samuel Taylor Coleridge, Charles Dickens, and Elizabeth Barrett Browning (Robson, 1999). As late as World War I, the famous London department store Harrods sold morphine (and cocaine) kits complete with syringes labeled "A Useful Gift for Friends at the Front" (Robson, 1999). England was also heavily involved in the proliferation of opiate use around the world (Anderson & Berridge, 2000). In the infamous "Opium Wars" (1839–1842) the British forced the Chinese to give them continued control of the opium market in China. As a result, it is estimated that at one point 15 to 20 million Chinese were addicted to opiates (Robson, 1999).

Meanwhile, in the United States, opiate use was also commonplace. During the Civil War, opium addiction by soldiers who had used it for pain relief was so common that it was referred to as the "soldier's disease" (Robson, 1999). Yet, addiction was not considered a significant social or legal problem at this time. Addicts who sought treatment were usually given another opiate as a "treatment" for their addiction. By the turn of the twentieth century, approximately 1% of the U.S. population was addicted to an opiate (Ray & Ksir, 2002). The typical addict was a middle-aged housewife, who could buy laudanum (for 9 cents an ounce) by mail from Sears & Roebuck (Ray & Ksir, 2002).

This picture of widespread opiate use and addiction changed dramatically in the United States following the passage of the Harrison Act in 1914. This legislation was prompted by growing concern about opiate addiction, and it outlawed all nonmedical uses of opiates. Suddenly, a legal group of drugs became illegal and has remained so to this day. Opiate use became a criminal issue (Wilson, 2000). Even the medical use of opiates was restricted by a 1919 Supreme Court ruling that prescribing maintenance

opiates to addicts was not acceptable medical practice (Robson, 1999). Opiate use plummeted, but it was also pushed increasingly into the criminal underworld, much as was the case with alcohol during the Prohibition period.

The United States and many Western countries experienced sharp increases in opioid use again during the 1960s and 1970s. Some of this was a result of the experiences of soldiers serving in Vietnam, where heroin was easily available and 95% pure (compared to 5–20% in the United States) (Robson, 1999). The counterculture movement of the 1960s also contributed to more widespread drug use, including use of opioids. Opioid addiction once again became a major legal and medical problem and has continued to be so. The AIDS epidemic, since the beginning of the 1980s, has intensified concern about heroin addiction since the virus is frequently spread through needle sharing (Alcabes, Beniowski, & Grund, 1999; Metzger, Navaline, & Woody, 2000; Somaini et al., 2000). Also, the "heroin chic" fashion style of the 1990s, which featured waiflike models with sunken eye sockets, caused concern about a glorification and resurgence of heroin use among young people. It is currently estimated that there are about 500,000 heroin addicts in the United States (Ray & Ksir, 2002). Addiction is a major problem in many other countries as well, such as China (McCoy et al., 2001), Afghanistan (Macdonald & Mansfield, 2001), Thailand (Cheurprakobkit, 2000), and Great Britain (Anderson & Berridge, 2000).

Cocaine

At several points in human history, a cycle of enthusiasm about the wonderful effects of cocaine has been followed by awareness of its dangers and increased regulation of the drug. Each time, the lessons from the past have been forgotten by later generations. Cocaine, then, provides another vivid example of the enduring issue of ***historical relativism***. Let's explore some of the historical and cultural changes that are part of the story of this fascinating substance.

Although the active ingredient in coca leaves, known as cocaine, was not isolated until 1859, the substance has been used for centuries. The native people of the Andes Mountains have probably chewed coca leaves since 5,000 B.C.E. (see Table 9.10 on the early history of cocaine). This helped give them the energy for carrying large bundles across the high mountains and accounts for one of cocaine's many nicknames: "Bolivian marching powder." These native peoples also used cocaine in religious rituals and as a form of currency.

During the 1800s, cocaine was brought to Europe and became immensely popular as a supposedly safe, mild stimulant. Its virtues were promoted by many respectable medical people, among them Angelo Mariani, a French chemist, W.S. Halsted, an American surgeon, and Sigmund Freud, the founder of psychoanalysis. Mariani imported huge amounts of cocaine to make a coca wine which became so popular that the Pope awarded him a medal of appreciation. Halsted, considered the "father of modern surgery," pioneered the use of cocaine as an anesthetic for surgery.

Freud's role in the history of cocaine is a particularly interesting one, especially given his later importance in the field of psychopathology. Early in his medical career, while he was still yearning for fame and the financial security that would enable him to marry his fiancée, Freud began to study the effects of cocaine. It was believed at the time that cocaine might be beneficial in the treatment of morphine addiction—a major problem then—as well as for treating certain heart conditions, depression, and as an anesthetic. Freud wrapped up his research on cocaine quickly,

because he had an opportunity to visit his fiancée whom he had not seen in two years. The paper he published, "Über Coca" ("On Cocaine"), was enthusiastic about the usefulness of cocaine, and it earned Freud some mild acclaim. However, upon returning from his visit to his fiancée, Freud discovered that a colleague, Carl Koller, had finished the crucial experiments demonstrating that cocaine was a breakthrough in anesthesia for eye surgery. Freud was frustrated that he had barely missed this opportunity for great fame, and later, of course, turned his ambitions in a different direction—the founding of psychoanalysis. In the meantime, Freud was an avid user of cocaine and provided samples to his friends. He wrote to his fiancée that a little cocaine helped him feel confident enough to speak to his esteemed professors, and he teased her that when he visited her she would behold "a big, wild man with cocaine in his body" (Gay, 1988). Only after one of his good friends became addicted—Freud was giving him cocaine to treat his morphine addiction—did Freud's enthusiasm for the drug wane.

In the United States, a similar cycle of enthusiasm for cocaine, followed by increased awareness of its dangers, occurred. In 1885, the Parke-Davis pharmaceutical firm described cocaine as a "wonder drug" and claimed that it "can supply the place of food, make the coward brave, and the silent eloquent" (Ray & Ksir, 2002). In 1886, the Coca-Cola Company began marketing a soft drink containing cocaine (thus the name Coca-Cola) based on the patented formula of an Atlanta druggist named John Pemberton. Coca-Cola, containing 60 milligrams of cocaine in every 8-ounce bottle, was promoted as a substitute for alcoholic beverages (Kerfoot, Sakoulas, & Hyman, 1996). But the tide soon began to turn against cocaine as concerns grew about its increasing use among the poor and its association with crime (Wilson, 2000). Cocaine was removed from Coca-Cola in 1906 and replaced with caffeine, a milder stimulant still found in many soft drinks. The government began to regulate the use of cocaine in the early 1900s along with the increasing regulation of opioids and other substances. Cocaine use also diminished because of the advent of amphetamines, developed in the 1930s. It was not until the 1970s, when increased regulation of amphetamines made them harder to obtain, that the popularity of cocaine resurfaced.

During the 1970s and 1980s, cocaine became so popular as a recreational drug that public health officials spoke of a "cocaine epidemic" (Rassool, 1998). The lessons of the previous century seemed to be forgotten as some physicians claimed that cocaine was a nonaddictive, relatively safe drug (Kerfoot et al., 1996; McDowell & Spitz, 1999). By 1990, it is estimated that 30 million Americans had tried cocaine, and 50% of Americans between the ages of 25 and 30 were thought to have used it. Finally, the new cocaine epidemic came full circle; as the public health community warned of the dangers of cocaine addiction, public sentiment turned more negative, and law enforcement against cocaine trafficking and use became a high national priority (Bowling, 1999; Furst et al., 1999; Nappo, Galduroz, & Carlini, 2000). Currently, rates of cocaine use are well below their peak about 20 years ago, although it remains widely used.

Cocaine still has a small role in medical practice. It is used as an anesthetic for medical procedures involving the nasal, laryngeal, and esophageal regions as well as the eyes—just as Freud and his colleagues suggested over 100 years ago. Derivatives of cocaine, such as novocaine, are also used by dentists for numbing and anesthesia. However, other medications have proven superior to cocaine for most anesthetic purposes and have replaced it as a medical tool.

Nicotine

Native Americans had been using tobacco for centuries when it was "discovered" by European explorers in the New World. Christopher Columbus reported that the native people of San Salvador gave him tobacco on his birthday in 1492. Tobacco quickly became very popular among the growing European population in the American colonies. The economic growth of the colonies was largely financed through the sale of tobacco, their most important cash crop. Tobacco smoking spread quickly through Europe as well. Sir Walter Raleigh is thought to have introduced tobacco to the court of Queen Elizabeth. It was widely believed to have significant medical benefits and was used to treat everything from headaches to flatulence in sixteenth-century Europe. The active ingredient in tobacco, nicotine, was isolated in 1828. Nicotine was named after Jean Nicot, a sixteenth-century Frenchman who had supposedly used tobacco to "cure" the headaches of Catherine de Medici, the wife of King Henry II. By the nineteenth century, the medicinal value of tobacco and nicotine had been disproved, and nicotine addiction had been identified as a problem. However, tobacco remained very popular, primarily in the form of snuff and chew products. Cigarettes did not become a popular form of tobacco use until the twentieth century. Tobacco use, primarily in the form of cigarettes, peaked in the 1950s.

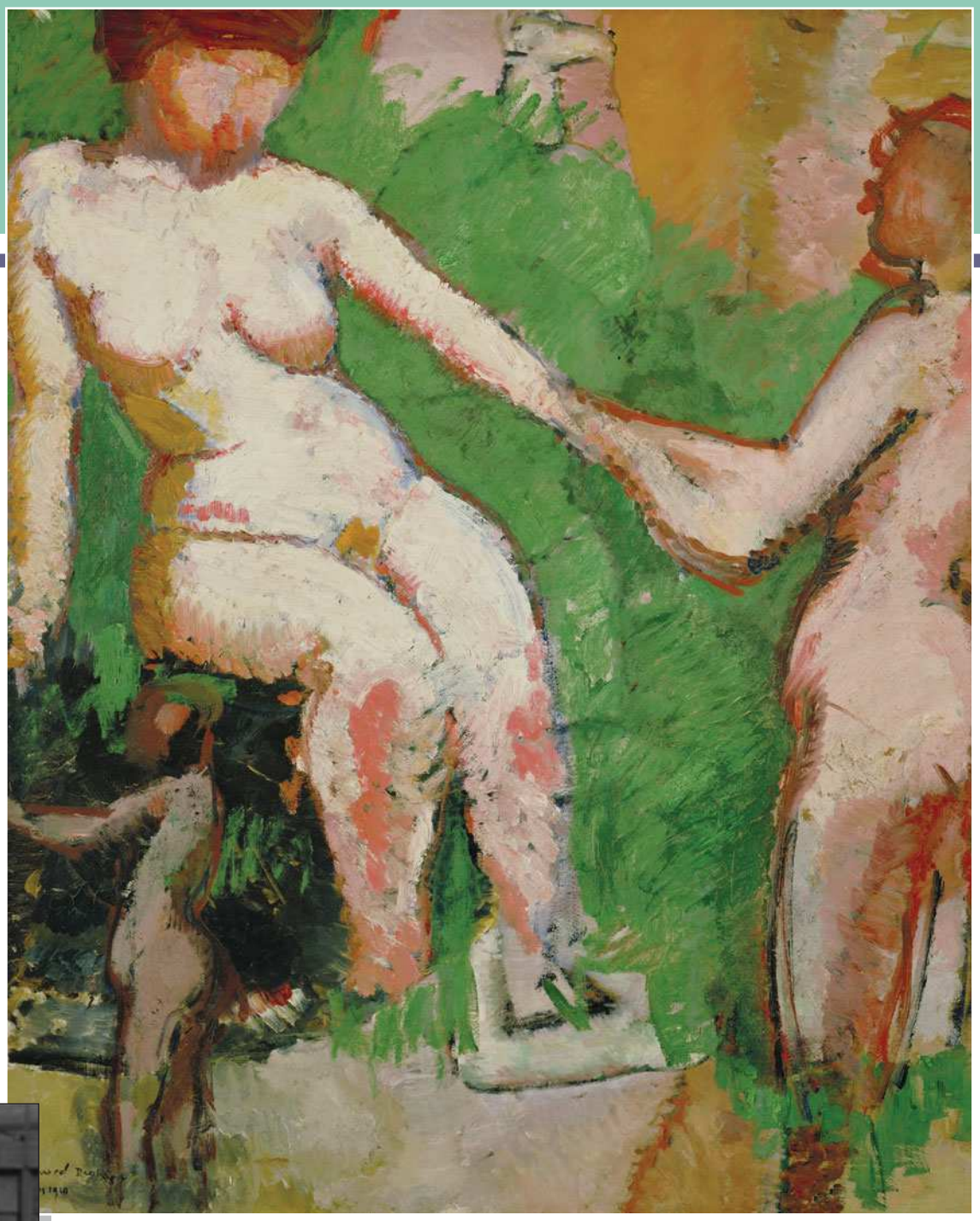
In 1964, the Surgeon General of the United States officially reported that smoking was medically dangerous. In 1971, cigarette commercials were banned from television. In recent decades, the profoundly toxic effects of direct and secondhand smoke have been documented over and over again. In response, tobacco companies have gradually decreased the amounts of nicotine and tars (which contain most of the carcinogens in smoke) in cigarettes. However, these companies have often been accused of misleading the public about the dangers of smoking and the addictiveness of nicotine. Some tobacco companies had evidence of the addictiveness of nicotine to rats in the early 1980s but did not publish the results (Ray & Ksir, 2002). It was not until the 1990s that tobacco companies began to admit their awareness of nicotine's addictive properties.

Marijuana

Like most other popular drugs, marijuana has been used for centuries; experts believe that it has been cultivated for at least 8000 years (Losken, Maviglia, & Friedman, 1996). There are references to marijuana in ancient Chinese medical texts and on ancient Egyptian papyrus tracts. Over the centuries, the cannabis plant has been used to make rope fiber as well as for its mind-altering/medicinal properties. George Washington grew cannabis plants at Mount Vernon in the 1700s, and marijuana was a popular drug in certain artistic and high society circles in Europe in the 1800s (Iversen, 2000). However, concern about marijuana use grew during the 1920s and 1930s, leading many states, and eventually the United States government, to outlaw the drug. This concern was based on the widespread belief that marijuana was linked to criminal behavior (Fisher & Harrison, 1997). For example, a 1936 article in *Scientific American* claimed that:

> *Marijuana produces a wide variety of symptoms in the user, including hilarity, swooning, and sexual excitement. Combined with intoxicants, it often makes the smoker vicious, with a desire to fight and kill.*
>
> *Quoted in Ray & Ksir, 2002 (p. 407)*

During the 1950s and 1960s, marijuana became increasingly popular, especially with young people. Marijuana use peaked around 1978, then declined until 1992, and has recently increased again (McDowell & Spitz, 1999). During the 1970s, several states decriminalized (lessened legal penalties against) marijuana in keeping with the popular view at the time that it was a relatively mild drug (Iversen, 2000). However, the conservative trend during the 1980s and 1990s caused a return to harsher legal treatment of marijuana possession, and, by 1996, 600,000 arrests on marijuana charges were made in the United States alone (Ray & Ksir, 2002). The position of recent U.S. administrations concerning marijuana has also caused controversy concerning the medical use of the drug. During the 1990s, some states attempted to make marijuana available for medical uses, such as treating glaucoma or severe nausea, over the objections of the Drug Enforcement Administration (DEA). The Supreme Court upheld the ban on medical uses of marijuana in May 2001, but the issue remains a controversial one (Nichols, 2000).



Marcel Duchamp, *Two Nudes,* 1910.
Oil on canvas, 38 7/8 x 31 7/8".
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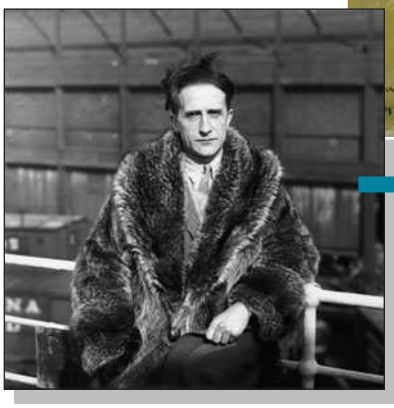

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Marcel Duchamp (1887–1968) secured his place in the history of modern art when his *Nude Descending a Staircase, No. 2* was included in the 1913 New York Armory Show. The absence of an actual nude in the painting heralded Duchamp's move toward Dadaism—a nonsense term used to describe art about life's absurdity and absence of meaning. Duchamp explored humor and absurdity in other ways as well. He enjoyed cross-dressing as a female alter-ego whose name, Rose Sélavy, was a play on the words *"Eros, c'est la vie"* (Desire, that is life).

CHAPTER 10

Sex, Gender, and the Sexual Disorders

CASE Vignettes

Laurie is a 29-year-old, married cosmetician; she and her husband are planning to start having children in a couple of years. Laurie is mostly satisfied with her life except for one thing: she has never enjoyed sex as much as she thinks she should, and rarely has orgasms. This has particularly bothered Laurie recently because she believes that once she becomes pregnant and starts having children her chances of having a satisfying sex life will be over. Laurie feels that she is missing out on something important, and this upsets her. Until she met the man who became her husband, Laurie's sexual problem didn't bother her much. Laurie had only two serious boyfriends before she married, and she'd always focused more on completing school and cosmetology training than on her personal life. When Laurie was growing up, her family life was very chaotic, largely due to her mother's emotional instability. Laurie decided at an early age that her life would be different: orderly and organized. When sex wasn't satisfying with her boyfriends, Laurie assumed that it would get better when she met the right man. But with Sam, her husband, things aren't much different. Laurie finds that while she likes the idea of sex, she has difficulty becoming aroused. She feels self-conscious about her body and ashamed about her "animal-like" feelings. Laurie rarely masturbates because she finds it too embarrassing. After confiding to a friend for the first time about her problem, Laurie decided to accept her friend's suggestion and consult a sex therapist.

Rick, a 28-year-old computer programmer, was arrested late one summer night for exposing his genitals to a woman who was walking in a park near his office. To his dismay, she calmly pulled out a cell phone and called the police, rather than giving him the look of shock and the scream of terror that he had expected and wanted. While this was the first time Rick had been arrested, he had been exposing himself to women in situations like this for years. After exposing himself to an attractive woman, Rick would go to his car and masturbate.

Rick was concerned about his behavior, but mainly because he feared what his parents would think if they ever found out. Rick's parents were very religious and extremely puritanical about sex; all sexual topics were off-limits in his family. Rick felt that it might literally kill his parents if they ever discovered what he had been doing. He told himself that if he was careful they would never know, and that he wasn't really hurting anybody. However, Rick felt very ashamed whenever people made comments about "perverts," and he told no one about his secret. His few friends and occasional girlfriends had no idea about his behavior. Rick did have sex with the women he dated, but he never enjoyed it as much as his "secret" behavior. Now that he had been caught, Rick was thinking for the first time about getting help for his problem. He knew that doing so might make a judge more sympathetic, and he hoped that "curing" his problem would prevent his parents from ever finding out about it.

Phil, a 35-year-old anthropologist, has never felt comfortable being male. As a toddler, he was more interested in playing with girls and dolls than with boys and trucks. When Phil was 4, his father, an abusive alcoholic, beat his mother so badly that she was hospitalized for a week. Thereafter, Phil, an only child, was terrified whenever he was left with his father, and he formed an especially close bond with his mother. They would whisper to each other about the father's whereabouts and moods to protect each other. Around his fifth birthday, Phil insisted to his parents that he was really a girl and that his penis would fall off soon. His parents were alarmed and had Phil see a child therapist at the time. Things seemed to get better as Phil began school. He made friends with girls, not boys, but he stopped saying that he was, or wanted to be, a girl. In junior high school, Phil began to realize that he was sexually attracted to boys. His father had left the family by then, and Phil confided to his mother about these attractions. She told him that he was probably gay and was very accepting. In high school, Phil came "out" and began having homosexual relationships. However, he never felt comfortable with his male body and found himself still drawn to emotionally intimate relationships with women, whom he admired and envied.

Phil became fascinated with anthropology in college and devoted himself to becoming an anthropologist. He loved the idea of immersing himself in a foreign culture so much that he could almost transform himself into a member of the other group. Phil was aware of the connection between this and his lifelong feelings of alienation as a man and his fascination with women. He also explored his fascination with women by occasionally cross-dressing and by taking a feminine role with his lovers. But Phil could never shake his unhappiness and a feeling that something was wrong in his life. After establishing himself as a successful professor of anthropology, Phil began to think seriously about pursuing a sex change. As he learned more about his situation and options, Phil became convinced that he was psychologically female and would only be happy in a woman's body.

Sexuality is an area of intense interest to most people. It has been said that sex is an amalgam of "friction and fantasy" (Kaplan, 1974). The former (friction) involves a powerful hormonal and biological reflex system, and the latter (fantasy) involves a powerful psychological drive. In our current culture, there are many available outlets for people's sexual interests. For example, when the Internet company Yahoo! began restricting access to sex-oriented chat rooms during the spring of 2001, there was an enormous outcry from thousands of disappointed users. But sexuality is also an area of emotional and moral conflict for many people—in fact, Yahoo! began blocking the sex-oriented chat rooms as a result of protests from religious organizations opposed to the chat room content (Schwartz, 2001). In brief, sex is an arena of excitement, passion, guilt, anxiety, shame, and many other intense feelings. It is no wonder, then, that people are especially interested in, and sometimes worried about, their own sexuality and whether it is "normal."

The three cases described above, each very different from the others, give some idea of the wide range of problems that fall under the heading of "sexual disorders." Laurie's problem is a limitation in her enjoyment of "normal" sexual activity, Rick has an "abnormal" sexual desire, and Phil's problem is not in the area of sex per se, but in the arena of gender identity, which is closely related to sex. We have put the words normal and abnormal above in quotes in order to make the familiar point that it is not easy to precisely define normality and abnormality. We have seen that this is true for many disorders, but defining abnormality is especially problematic when it comes to sexuality.

DEFINING SEXUAL DISORDERS

Defining abnormality in the area of sexuality is challenging, mainly because of three core concepts in abnormal psychology: the ***continuum between normal and abnormal behavior***, the ***importance of context*** in defining abnormality, and ***cultural and historical relativism*** (Kernberg, 2001; Romano, DeLuca & Rayleen, 2001).

The Continuum Between Normal and Abnormal Sexuality and the Importance of Context in Defining Abnormality

Normal-abnormal continuum

To illustrate the ***continuum*** between normal and abnormal sexuality, let's return to the cases at the beginning of the chapter. In each case, it is clear that something is wrong, although one might hesitate to use terms such as "abnormal" or "disordered." In particular, Laurie seems to be happy and to function well aside from her sexual frustration. Yet from a DSM-IV-TR standpoint, her condition can be considered a disorder because it causes significant distress and impairment. (In fact, as we will see, at least two DSM-IV-TR diagnoses might apply to Laurie—female sexual arousal disorder and female orgasmic disorder—both described later in the chapter.) But what if Laurie were not distressed by her situation? Or what if she were able to have orgasms regularly by masturbating, even though sex with her husband wasn't fully satisfying? What if she lived in a culture in which women were not expected to enjoy sex? With this last example, we are foreshadowing the discussion of ***cultural relativism***, but all three examples illustrate once again how difficult it can be to draw the line between normal and abnormal sexual behavior.

The importance of context

The cases of Rick and Phil probably seem like more clear-cut examples of abnormal sexuality. However, some members of the "transgender" movement (a movement supporting people who want to change their gender) would argue that the only problem with Phil's situation is society's intolerance of it, and that there is no mental disorder involved. And in Rick's case, what if he only had *fantasies* of exhibiting himself, or acted his fantasies out with a consenting partner? For that matter, how different is Rick's behavior from the behavior of someone who goes out in public dressed to shock people, or from someone who strips for money? These questions highlight the ***importance of context*** in defining abnormal sexuality; sexual behaviors that would be considered inappropriate and abnormal in one context might seem normal in another context. The DSM-IV-TR provides diagnostic criteria (which we will review later in the chapter) that attempt to draw a line between normal and abnormal sexuality, but they contain many vague and even contradictory elements (Parsons, 2000; Szuchman & Muscarella, 2000).

Cultural and Historical Relativism in Defining and Classifying Sexual Disorders

Cultural and historical relativism

The concepts of ***cultural and historical relativism*** are especially relevant to the area of sexual disorders, and contribute to the challenges of defining abnormal sexuality. Let's consider two sexual practices that have been viewed very differently during different historical periods and in different cultures: masturbation and homosexuality. In 1994, the Surgeon General of the United States, Dr. Jocelyn Elders, was fired by President Clinton after she made remarks suggesting that masturbation should be discussed in school as part of sex education (Frisby, 1994; Kolata, 1994). Her dismissal demonstrates how much tension and anxiety still surround the topic of masturbation, and sexuality in general, even though Dr. Elders' views were well within the scientific mainstream. Masturbation is generally considered a harmless, normal, and nearly

Dr. Jocelyn Elders Dr. Elders sparked controversy as the U.S. Surgeon General for her strong support of sex education in schools.

universal activity (Baumeister, Kathleen, & Vohs, 2001; Halpern et al., 2000; Szuchman & Muscarella, 2000). It is nearly unthinkable that someone would be considered mentally ill because he or she masturbates. In fact, it is far more common today to consider the *absence* of masturbation, at least during adolescence, to be a sign of pathology (Laufer, 1981; McCarthy & McCarthy, 1998; Money, 1986).

However, in the nineteenth century people sometimes *were* considered mentally ill, and even hospitalized, because they masturbated (Hare, 1962). A medical anti-masturbation movement began in the 1700s, launched by a Swiss psychiatrist named S. D. D. Tissot, whose book, *Onanism, or a Treatise on the Disorders of Masturbation*, warned of the dangers of the practice (Bullough, 1987; Kolata, 1994; Tissot, 1817). Benjamin Rush, the father of American psychiatry, also argued against masturbation and considered it physically and psychologically damaging (Switzer, 1967). In the nineteenth century, two American industrialists took the antimasturbation campaign to the cupboards of America's kitchens. Both Sylvester Graham, the inventor of the graham cracker, and J. H. Kellogg, the founder of the Kellogg cereal company, wrote books on the evils of masturbation (Kellogg suggested "curing" girls by putting carbolic acid on the clitoris). Graham's and Kellogg's food products were designed to keep children from masturbating by feeding them bland foods in an effort to decrease their excitability (Graham, 1854; Kellogg, 1881; Sokolow, 1983). Antimasturbation views were so widespread that inventors developed genital cages that would sound an alarm when an erection occurred while a boy was sleeping (Kolata, 1994; Money, 1985). Even Freud, who popularized a more permissive and accepting view of childhood and adult sexuality, believed for some time that masturbation could cause a form of neurosis (Bonaparte, 1954/2000; Gay, 1988).

Homosexuality has been subject to similarly bizarre and shifting social judgments, which further illustrate the principle of ***historical relativism***. Until 1973, homosexuality was listed in the DSM-II as a mental disorder. Thereafter, the diagnosis of homosexuality was replaced by the diagnosis of **ego-dystonic homosexuality** (that is, homosexuality that is distressing and unwanted by the client). The reasons for this change were complex and involved a variety of scientific, cultural, and political developments reflected in the increasingly widespread view that homosexuality per se was not a disorder but a normal variation of sexuality (Bayer, 1981; Bullough, 1976; Laws & O'Donohue, 1997). Later, even ego-dystonic homosexuality was removed from the diagnostic manual on the grounds that it usually reflected internalized homophobia and prejudice, did not constitute a mental disorder, and was not associated with psychopathology (Cohler & Galatzer-Levy, 2000). Indeed, it is not even clear how to best define homosexuality, since sexual orientation can be defined in various, sometimes conflicting ways—such as by romantic attraction, by sexual arousal, by sexual behavior, or by self-definition (Savin-Williams, 2006). The most current DSM, the DSM-IV-TR, does not mention homosexuality (APA, 2000).

Ego-dystonic homosexuality A DSM-III diagnosis, since eliminated, that referred to homosexuality that was distressing and unwanted by the client.

Kellogg's cereals and sexuality It is a little-known fact that J. H. Kellogg invented his breakfast cereals as part of his mission to discourage sexuality in young people; he hoped that feeding them bland food in the morning would decrease their excitability.

The fact that only 35 years ago many clients were in treatment with a diagnosis of "homosexuality" shows how much and how quickly norms regarding sexuality can change, causing our definitions of abnormality to change along with them. Definitions of sexual abnormality also vary greatly across cultures (Bullough, 1976, 1987; Nye, 1999)—reflecting the core concept of ***cultural relativism***. For example, China only removed homosexuality as a psychiatric diagnosis in 2001 (Heng, 2001). In another culture, that of the Sambia people of Papua New Guinea, ritualized male homosexuality is the norm before the birth of a man's first child (Herdt & Stoller, 1990). More generally, the liberal and liberated sexual mores of the contemporary Western world are considered bizarre and abnormal in conservative, traditional cultures around the world (Davidson & Moore, 2001; Nye, 1999; Tseng, 2001). Also, disorders such as Rick's *exhibitionism* (one of the disorders within a category called *paraphilias*, described later

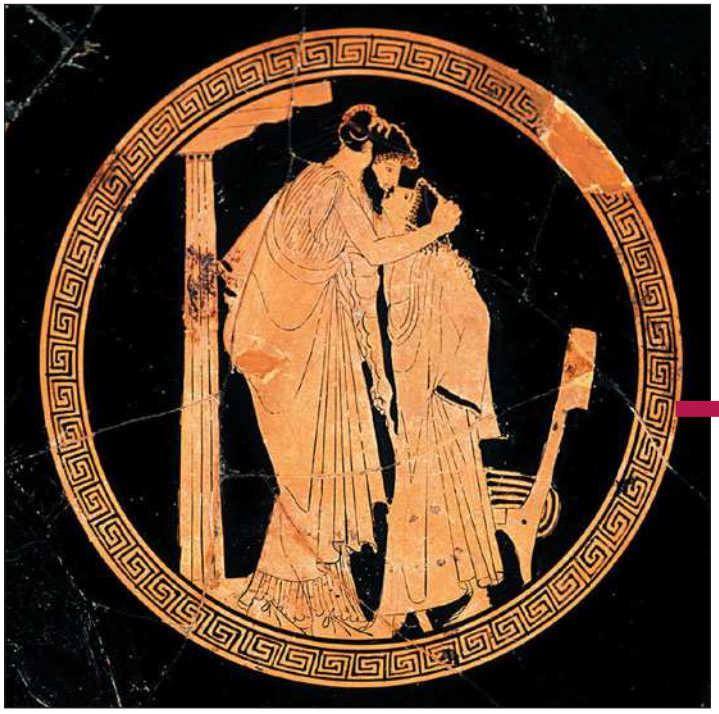
in the chapter) are found primarily in Western societies (Bhugra, 2000). Other sexual disorders are found only in non-Western cultures. For example, a syndrome known as *dhat*, which consists of severe anxiety associated with the loss of semen in ejaculation, is found primarily in India, Sri Lanka, and China (APA, 2000; Shukla & Singh, 2000).

The bottom line is that the core concepts involving the ***importance of context***, the ***continuum between normal and abnormal behavior***, and ***cultural and historical relativism*** make it so difficult to define the concept of a sexual disorder that many experts eschew the phrase "sexual disorder" altogether and use the term "sexual deviation" instead (Willerman & Cohen, 1990). This latter term is meant to convey that it may be more appropriate, scientifically speaking, to describe certain sexual practices as "deviant" (that is, statistically rare) rather than "disordered" (implying a mental disease). Some theorists take the concepts of the ***continuum*** and ***relativism*** to extremes, arguing that all sexual taboos are based on cultural biases and prejudices (an argument presented in Box 10.1). However, it remains important to try to define, classify, and understand abnormal sexual behaviors so that we can offer treatments to those who may be suffering because of them. Experts have attempted to classify sexual disorders for hundreds of years. We now turn to a review of these classification schemes and their frequently changing categories, and then examine the current DSM-IV-TR sexual disorder diagnoses.

BRIEF SUMMARY

- Sexuality is a ubiquitous, intense, and emotionally conflicted aspect of human life.
- The core concepts of the ***continuum between normal and abnormal behavior***, the ***importance of context***, and ***historical and cultural relativism*** make it especially difficult to define abnormal sexuality.

Critical Thinking Question Are there any forms of sexual behavior that can be absolutely defined as abnormal regardless of the issues of the ***continuum***, ***context***, and ***cultural and historical relativism***?



Sexuality and historical relativism
This painting from the Classical period of ancient Greece showing a man kissing a young boy illustrates the historical relativism of attitudes about homosexuality. In ancient Greece, it was conventional for adult men to maintain sexual relationships with adolescent boys.

CLASSIFYING SEXUAL DISORDERS

Contemporary classifications of sexual abnormality in Western cultures have their roots in the mid-1800s. At that time, medical scientists began to view sexuality as a legitimate area of scientific investigation, beginning a process of the "medicalization of sexuality" that continues to this day (Kleinplatz, 2003). Prior to the 1800s, aberrant sexuality had been considered an issue of sin or vice, within the purview of the Church rather than science or the state. During the 1800s, several scientific books dealing with sexual abnormality were written, the most important of which was Dr. Richard von Krafft-Ebing's *Psychopathia Sexualis*, first published in Germany in 1886. Krafft-Ebing's book (which was so successful both as a scientific work and as pornography to a titillated public that it went through 12 editions) organized sexual pathology into some still familiar categories such as *sexual sadism, sexual masochism*, and *fetishism*, illustrated with hundreds of case studies he had collected (see Figure 10.1). To give a flavor of the book and of the times, here is Krafft-Ebing's case number 43, an example of sexual sadism.

> *P., aged fifteen, of high social position, came from a hysterical mother whose brother and father died in an asylum. Two children in the family died early in childhood of convulsions. Although the patient was talented, virtuous, and quiet, at times he was very disobedient, stubborn, and of violent temper. He had epilepsy, and practiced masturbation. One day it was learned that P., with money, induced a comrade of fourteen, B., to allow himself to be pinched on the arms, genitals, and thighs. When B. cried, P. became excited and struck at B. with his right hand, while with his left he made manipulations in the left pocket of his trousers. P. confessed that to maltreat his friend, of whom he was very fond, gave him peculiar delight, and that ejaculation while hurting his friend gave him much more pleasure than when he masturbated alone.*
>
> *Quoted in Krafft-Ebing, 1999 (p. 113)*

Krafft-Ebing's work greatly influenced the next major figure to study sexuality, Sigmund Freud. Freud's early work in psychoanalysis, as you know, focused on sexuality, which was still a relatively taboo subject in Victorian Europe. Freud was especially interested in the role of emotional conflicts about sexuality as a causal factor in all sorts of mental disorders ranging from anxiety to schizophrenia. Like others at the time, Freud used the term *perversion* as a diagnostic label to refer to "sexual behavior that accompanies. . .atypical means of obtaining sexual pleasure" (Laplanche & Pontalis, 1973). Freud's unique contribution was to relate "perverse" behaviors to a theory of the development of the sex-

Figure 10.1 Cases from Krafft-Ebing's Psychopathia Sexualis (1886) Brief case descriptions from Krafft-Ebing's influential book are presented here.

Case 93. A gentleman of very bad heredity consulted me concerning impotence that was driving him almost to despair. While he was young, his fetich (sic) was women of plump form. He married such a lady, and was happy and potent with her. After a few months the lady fell very ill, and lost much of her flesh. When, one day, he tried to resume his marital duty, he was absolutely impotent, and remained so. If, however, he attempted coitus with plump women, he was perfectly potent.

Case 99. X., aged twenty, inverted sexually (authors' note: "inverted" was the then-current term for homosexual). Only loved men with a large bushy mustache. One day he met a man who answered his ideal. He invited him to his home, but was unspeakably disappointed when this man removed an artificial mustache. Only when the visitor put the ornament on the upper lip again, he exercised his charm over X once more and restored him to the full possesion of virility. . . .

BOX 10.1 The Limits of Relativism: Bestiality and the Animal Rights Movement

"YES, BUT DID ANYONE ASK THE ANIMALS' OPINION?" *by Sarah Boxer*

The following article from *The New York Times* describes a controversy over the question of whether taboos against bestiality (a sexual disorder listed in the DSM-IV-TR as zoophilia) are a form of historically and culturally based prejudice against animals, an issue that has divided the animal rights movement.

The controversy came with the first daffodils in March, shortly after Peter Singer, the father of the animal rights movement, reviewed a reissue of the book *Dearest Pet: On Bestiality* (Verso), by the Dutch biologist Midas Dekkers, for *Nerve*, an online sex magazine. Three months have passed and still the sun has not set on the latest tempest surrounding Mr. Singer, the provocative author of *Animal Liberation* and a professor of bioethics at Princeton University's Center for Human Values.

Mr. Singer had received his share of human venom before this. Protesters have called him a Nazi for his view that in some cases infanticide and euthanasia are morally justifiable.

The furor this time concerns sex with animals.

In his review, titled "Heavy Petting," Mr. Singer noted that almost all of the taboos on nonprocreative sex (taboos against homosexuality, oral sex, contraception, and masturbation) have vanished. But one notable exception still stands: the taboo on sex with animals. "Heard anyone chatting at parties lately about how good it is having sex with their dog?" he asked. The persistence of the bestiality taboo, he wrote, reflects humans' ambivalence about animals. We know we are like them, but we think we are better, and so we want "to differentiate ourselves, erotically and in every other way, from animals."

Of course, the taboo does not prevent fantasies. Mr. Singer described the illustrations in Mr. Dekkers' book, including "a 17th-century Indian miniature of a deer mounting a woman" and a nineteenth-century Japanese drawing of a very busy giant octopus groping a woman. Nor is the taboo always effective in real life. Mr. Singer noted that some men have sex with hens, and certain people don't stop the family dog from making free with them, which occasionally leads to "mutually satisfying activities."

The moral problem with human beings' consorting with animals, Mr. Singer suggested, is not human indignity and depravity but rather cruelty to animals. But as he put it, "Sex with animals does not always involve cruelty." And if cruelty is the problem, isn't raising them to kill them generally worse than coupling with them? *The San Francisco Chronicle* summed up Mr. Singer's position on animals thus: "You can have sex with them, but don't eat them."

The reaction was swift and prolonged. Some critics were appalled on behalf of humans, others on behalf of animals. And the headlines flowed—"Lock the Barn Door," "Puppy Love," and "The Love That Dare Not Bark Its Name."

As word of Mr. Singer's review spread, the debate began to shift from cruelty to consent. *Slate*, an online magazine, said Mr. Singer hadn't explained "how an animal can go about giving consent because, well, you know, animals can't talk." And *The New Republic* went further: "If animals are entitled to the protection of what we today call human rights, Isn't sex with them, absent consent, rape?"

Pretty soon animal rights groups began weighing in, from the president of the Animal Sexual Abuse Information and Resource Site, a group that fights bestiality, to the president of United Poultry Concerns Inc., a group based in Machipongo, Virginia, that stands up for the rights of domestic fowl.

Priscilla Feral, the president of Friends of Animals, wrote that "bestiality is wrong for the same reason pedophilia is wrong." Gary Francione who, like Mr. Singer, is one of the signers of the Declaration on the Rights of Great Apes, said Mr. Singer could no longer be trusted with the rights of apes.

There was one important exception. Ingrid Newkirk, the president of People for the Ethical Treatment of Animals, not only stood by Mr. Singer but also imagined a few perfectly innocent human–animal sex acts: "If a girl gets sexual pleasure from riding a horse, does the horse suffer? If not, who cares? If you French kiss your dog and he or she thinks it's great, is it wrong? We believe all exploitation and abuse is wrong." But she added, "If it isn't exploitation and abuse, it may not be wrong."

Mr. Singer said the fuss over his review was largely "hysterical" and a big waste of time. "This country is in the grip of a Puritan worldview," he added. When it comes to bestiality, the stakes are relatively small: While factory farming kills billions of animals a year, he said, human–animal sexual interactions involve only hundreds or thousands.

To some degree, the subject of bestiality represents the extreme edge of a larger discussion about whether animals have rights and what they are. But a legal issue is also at stake. In an essay reproduced at www.asairs.com, Piers Beirne, chairman of the Department of criminology at the University of Southern Maine, in Portland, where he teaches a course on animal abuse, wrote that 24 states now have laws against bestiality, and seven more are considering them.

In Maine, he said, bestiality was once considered a crime against God and brought a sentence of 10 years of hard labor. The law loosened up after World War II. But now a bill before the Maine State Legislature proposes to recriminalize bestiality on the ground that it is cruel to animals and linked with domestic violence. *The Bangor Daily News* quoted Philip Buble, a man who came to testify, as saying that he often has sex with his dog-spouse, Lady Buble. "In the eyes of God," he said, "we are truly married."

The main effect of Mr. Singer's review, Mr. Beirne said, will be the one that he intended: "A subject which for centuries was taboo will now be out in the open." But something else has changed. Now when it comes to bestiality, the debate is not so much about what God wants as what animals want.

The New York Times, June 9, 2001, p. A19.

Michelangelo The painter Michelangelo was one of many great individuals cited by Freud as evidence that homosexuality was not a defect.

ual instinct during childhood. Freud believed that human beings are born with a bisexual disposition that seeks oral, anal, and phallic forms of pleasure in infancy and childhood before developing into the familiar form of genitally focused heterosexuality at adolescence (Freud, 1905). He argued that "perversions" were formed when sexual development got stuck, or "fixated," at one of the stages along the way, such as an oral, anal, or homosexual stage. If the person resisted his or her perverse wishes with defense mechanisms, a neurosis would develop, while if the person allowed his or her desires to be expressed, they would constitute a perversion; thus Freud's famous dictum that "neuroses are the negative of perversions" (Freud, 1905). It is also notable that Freud was rather unique in his day for his sympathetic attitude toward homosexuality, which he viewed as a developmental fixation but not as a disorder. For example, when the worried mother of a young gay man in the United States wrote Freud for advice, he replied that the man need not, and probably could not, change his sexual orientation. Freud encouraged the mother and son to accept the son's homosexuality as nothing to be ashamed of, noting that several of the greatest men in history (he cited Plato, Michelangelo, and Leonardo da Vinci) had been gay. Freud concluded: "It is a great injustice to persecute homosexuality as a crime—and a cruelty, too" (Gay, 1988).

It is important to note that in Freud's time, the terms *perverse* and *perversion* were used as scientific, diagnostic terms and did not have the negative, derogatory connotations they have since assumed. Early editions of the DSM continued to use the term *perversion* in connection with sexual disorders, and also continued to use many of the other categories developed by Krafft-Ebing and Freud. In more recent editions, however, the DSM has substituted the term *paraphilia* (from the Greek for "beside love") to describe the conditions formerly labeled "perversions" because the latter term has developed negative connotations (Charlton & Quatman, 1996; Moser, 2001; Suppe, 1984).

The DSM-IV-TR Categories

We have seen in previous chapters that sexuality and sexual conflicts can play a large role in many emotional disorders. Freud, for example, originally thought that most forms of psychopathology were caused by sexual conflict, such as Little Hans's phobia (Chapter 4) resulting from his Oedipal conflicts (Freud, 1954/1909; Gay, 1988). Even though current psychodynamic theorists take a broader view of the etiology of mental disorders, sexuality remains a focus in many of their theories, and most theoretical perspectives include sexuality as an important causal factor in some disorders. However, it is important to keep in mind that when we talk about the DSM-IV-TR category called sexual disorders we are referring to disorders in which the *symptoms* are sexual. Thus, we would not consider a phobia—like Little Hans's fear of horses—a sexual disorder even though the root cause may have been sexual conflict. Classifying disorders on the basis of symptoms rather than causes, of course, is at the heart of the DSM-IV-TR approach, and it has advantages and limitations, as we have seen. Symptom-based diagnosis can be a useful way of grouping disorders as long as one keeps in mind that the symptoms of a disorder are not necessarily indicative of its causes. For example, you will see that one of the leading theoretical explanations of sexual disorders like Rick's *exhibitionism* focuses on underlying causes that have little to do with sex and much more to do with aggression that is acted out in the sexual domain. Thus, as we cover the DSM-IV-TR sexual disorder diagnoses, keep in mind the core concept of the ***advantages and limitations*** of symptom-based diagnosis.

The DSM-IV-TR includes three very different groups of conditions under the general heading of "sexual disorders." The first group, the **sexual dysfunctions**, refers to persistent problems with sexual interest, sexual arousal, or orgasm—the major components of the human "sexual response cycle"—in the context of "normal" sexual relationships.

Sexual dysfunctions DSM-IV TR disorders involving persistent problems with sexual interest, sexual response, or orgasm.

Sexual dysfunctions are quite common in both men and women (as in the chapter opening case of Laurie), can have psychological and/or biological causes, and are usually quite treatable. The second group is the **paraphilias**—the same group Freud classified as "perversions"—in which a person's sexual desires and preferences are considered abnormal (as in the case of Rick). The causes of paraphilias—disorders such as *sexual sadism* and *exhibitionism*—are more complex, and treatment is more difficult. Interestingly, for reasons we will discuss later in the chapter, paraphilias are almost exclusively found in men. Finally, the DSM-IV-TR includes under the rubric of sexual disorders a relatively rare condition called *gender identity disorder* (as in the case of Phil). This is a disorder in which individuals—men about twice as often as women—feel that they have the body of the wrong sex and want to change sexes. We now turn to a more detailed consideration of disorders in each of these categories.

Paraphilias DSM-IV-TR disorders involving persistent sexual desires or preferences that are considered abnormal.

The Sexual Dysfunctions

The sexual dysfunctions are best defined in terms of the sexual response process (Kaplan, 1995; Sadock & Sadock, 2000). Normal sexual response is currently understood as a process involving four stages: (1) *sexual interest or desire;* (2) *sexual excitement or arousal;* (3) *orgasm;* and (4) *resolution* (see Visual Essay 10.1). This four-stage model of sexual response was developed by Kaplan (1974, 1995), who slightly modified the pioneering work on sexual response by Masters and Johnson (1970). Sexual dysfunctions consist of *persistent* problems at any stage of the sexual response process; *occasional* problems with sexual response are extremely common and not considered dysfunctions. Since there are no dysfunctions associated with the resolution phase of the cycle, the sexual dysfunctions involve persistent problems with sexual desire, sexual excitement, orgasm, or pain related to sexual activity (APA, 2000). Clients can be diagnosed with one or more sexual dysfunctions according to the criteria listed in the DSM-IV-TR (see Table 10.1). Overall, the sexual dysfunctions are relatively common (prevalence data are included in the description of each dysfunction listed in the following paragraphs), much more so than the other, more severe sexual disorders (paraphilias and gender identity disorder).

In general, the sexual dysfunctions are considered quite treatable (Kockott, 2007; Segraves & Althof, 1998; Wylie, 1997). In many cases, especially in younger people, sexual dysfunctions are a result of sexual inexperience or lack of adequate sexual information (Charlton & Quatman, 1996). In other cases, a wide range of psychological and biological factors can be involved. On the psychological side, Masters and Johnson (1970) emphasized the role of sexual *performance anxiety* (worries about sexual competence) and *spectatoring* (anxious, detached self-observation) in causing sexual dysfunctions. Masters and Johnson developed couple-based treatment techniques such as *sensate focus*, which involves exercises to enhance sensual awareness, and *nondemand pleasuring*, a graduated series of "petting" exercises that initially deemphasize intercourse and orgasm so as to create a nonpressured atmosphere for sensual exploration (Masters, Johnson, & Kolodny, 1986). In addition to these widely used behavioral methods, the treatment of sexual dysfunctions often involves discussion of emotions such as guilt, shame, and anxiety that may be interfering with normal sexual response. Emotional conflicts relating to the present, the recent past, and childhood (such as sexual abuse or other sexual traumas, or problematic sexual learning experiences) can all play an important role in the sexual dysfunctions (Levine & Althof, 1997; Rosen & Leiblum, 1995). In keeping with the core concept of the ***connection between mind and body***, all of the psychological factors noted above can influence the physical aspects of sexual functioning, and psychological interventions can restore the physical capacities necessary for pleasurable sexual activity.

TABLE 10.1 Diagnostic Criteria for the Sexual Dysfunctions

SEXUAL DESIRE DISORDERS

Hypoactive sexual desire ■ Persistently deficient sexual fantasies and deficient desire for sexual activity, causing distress or interpersonal difficulty.

Sexual aversion ■ Persistent extreme aversion to, and avoidance of, genital sexual contact with a sexual partner, causing distress or interpersonal difficulty.

SEXUAL AROUSAL DISORDERS

Female sexual arousal disorder ■ Persistent inability to attain, or maintain, an adequate lubrication-swelling response of sexual excitement, causing distress or interpersonal difficulty.

Male erectile disorder ■ Persistent inability to attain, or maintain, an adequate erection, causing distress or interpersonal difficulty.

ORGASMIC DISORDERS

Female orgasmic disorder ■ Persistent delay in, or absence of, orgasm following a normal sexual excitement phase, causing distress or interpersonal difficulty.

Male orgasmic disorder ■ Persistent delay in, or absence of, orgasm following a normal sexual excitement phase, causing distress or interpersonal difficulty.

Premature ejaculation ■ Persistent ejaculation with minimal sexual stimulation before, on, or shortly after penetration and before the person wishes it, causing distress or interpersonal difficulty.

SEXUAL PAIN DISORDERS

Vaginismus ■ Persistent involuntary spasm of the musculature of the outer third of the vagina that interferes with sexual intercourse, causing distress or interpersonal difficulty.

Dyspareunia ■ Persistent genital pain associated with sexual intercourse, causing distress or interpersonal difficulty.

Adapted from DSM-IV-TR (APA, 2000)

On the biological side, medical illnesses (such as diabetes and heart conditions), numerous medications, poor diet, aging, and substance use (including cigarette smoking) can all contribute to sexual dysfunctions. For example, medications that inhibit the parasympathetic division of the autonomic nervous system can adversely affect sexual arousal, while medications that inhibit the sympathetic branch of the system can affect orgasm (Smith, 2004) (see Table 10.2.)

Because of the range of causes associated with the sexual dysfunctions, the DSM-IV-TR provides subtypes for each diagnosis according to etiology (if known). Sexual dysfunctions can be subtyped as "due to psychological factors," "due to combined factors," "due to a general medical condition," or "substance-induced." In addition, subtypes are listed according to whether the dysfunction is lifelong or acquired (beginning after a period of normal functioning) and generalized or situational (APA, 2000). With these general comments on the sexual dysfunctions in mind, we now turn to a more detailed discussion of each of the dysfunctions.

TABLE 10.2 Medications That Can Influence Sexual Function (partial list)

DRUG NAME	POTENTIAL EFFECT
Paroxietine (Paxil)	Decreased desire; delayed or no orgasm
Perphenazine (Trilafon)	Decreased or no ejaculation
Phenelzine (Nardil)	Impotence; retarded or no ejaculation; delayed or no orgasm
Phenytoin (Dilantin)	Decreased desire; impotence; priapism (prolonged, painful erection)
Prazosin (Minipress)	Impotence
Propantheline (Pro-Banthine)	Impotence
Propranolol (Inderal)	Loss of desire; impotence
Protriptyline (Vivactil)	Loss of desire; impotence; painful ejaculation
Ranitidine (Zantac)	Impotence; loss of desire
Reserpine (Harmonyl)	Decreased desire; impotence; decreased or no ejaculation
Sertraline (Zoloft)	Decreased desire; retarded or no orgasm
Spironolactone (Aldactone)	Decreased desire; impotence
Sulfasalazine (Azulfidine)	Impotence
Tamoxifen (Nolvadex)	Priapism
Testosterone	Priapism
Thioridazine (Mellaril)	Impotence; retrograde, painful, or no ejaculation
Thiothixene (Navane)	Spontaneous ejaculations; impotence; priapism
Tranylcypromine (Parnate)	Impotence; painful ejaculation; retarded ejaculation

Adapted from Charlton & Quatman, 1996

Sexual Desire Disorders

Hypoactive sexual desire consists of a lack of interest in sex. While most people take interest in sex for granted, this first stage of the sexual response cycle is problematic for some. Prevalence estimates for this disorder vary widely; a conservative estimate would be that in a given year 10% of women and probably less than 3% of men experience persistent lack of desire (Hall et al., 2000; Simons & Carey, 2001). However, rates appear to be increasing, especially among men (Hall et al., 2000). Part of the difficulty in accurately estimating the prevalence of this dysfunction is the lack of uniform criteria in studies; there is a pressing need for more research using standard criteria (Basson et al., 2004; Hartmann et al., 2002). Loss of interest in sex is a common symptom of many medical conditions and of many mental disorders such as depression (Hall et al., 2000). Ironically, decreased sexual desire can also be a side effect of numerous medications, including some antidepressants (Seidman, Roose & Rosen, 2004; Wise, 1999). Aging processes and hormonal changes, such as menopause in women, can also decrease sexual desire; in such cases hormone treatments may be helpful in restoring sexual interest (Alexander et al., 2004; Warnock, Bundren, & Morris, 1999).

Hypoactive sexual desire Persistently deficient sexual fantasies and deficient desire for sexual activity, causing distress or interpersonal difficulty.

Sexual aversion Persistent extreme aversion to, and avoidance of, genital sexual contact with a sexual partner, causing distress or interpersonal difficulty.

Female sexual arousal disorder Persistent inability to attain, or maintain, an adequate lubrication-swelling response of sexual excitement, causing distress or interpersonal difficulty.

Male erectile disorder Persistent inability to attain, or maintain, an adequate erection, causing distress or interpersonal difficulty.

Of course, emotional conflicts about sex, bodily functions, and pregnancy can contribute to a lack of sexual interest (Aslan et al., 2005; Katz & David, 1999). **Sexual aversion** is a more extreme form of disinterest in sex—an actual aversion to and avoidance of sexual activity (APA, 2000). The same range of psychological and biological factors that can contribute to decreased desire can also contribute to sexual aversion, but the active feelings of disgust about sex in sexual aversion usually signal the significant influence of emotional conflicts in this disorder (Carnes, 1998; Rosen & Leiblum, 1995).

Sexual Arousal Disorders

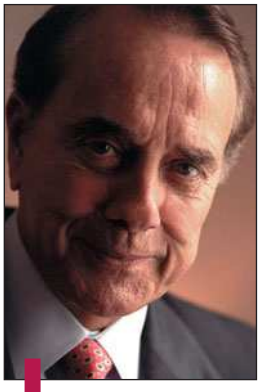
The second phase of the sexual response cycle, the arousal/excitement phase, involves distinct physical changes that accompany the subjective feelings of arousal. In women, the primary physical process involves lubrication and swelling of the vaginal tissue in anticipation of sexual intercourse. For men, erection of the penis occurs during this phase.

Female sexual arousal disorder involves persistently insufficient lubrication responses to sexual stimuli—a condition sometimes referred to, somewhat disparagingly, as "frigidity" (Masters, Johnson, & Kolodny, 1986). Prevalence research on this disorder is inadequate, but most estimates suggest that between 10 and 20% of women experience this condition over the course of a lifetime (Simons & Carey, 2001). Female sexual arousal disorder is often associated with hypoactive sexual desire (and female orgasmic disorder, discussed later) and has a similar range of psychological and biological causes. Consequences of the disorder include painful intercourse, sexual aversion, and relationship difficulties (APA, 2000).

Male erectile disorder (also known as *erectile dysfunction, ED*, and *impotence*) involves the persistent inability to attain, or maintain, an erection. Most estimates of its annual incidence among adult men are in the 5 to 15% range (Charlton & Quatman, 1997; Masters, Johnson, & Kolodny, 1986; Simons & Carey, 2001), although these estimates are considered somewhat unreliable because of the lack of definitive research and the reluctance of many men to share accurate information on this topic. ED is highly age-related, affecting up to half of men between the ages of 40 and 70 (Seidman, Roose & Rosen, 2004). Certainly, the popularity and success of Viagra (the active ingredient of which is the chemical compound Sidenafil) and similar medications, which normalize blood flow to the penis facilitating erection, indicate the enormous number of men with this dysfunction.

Prior to the development of Viagra, the major treatments for erectile disorder were penile tension rings, vacuum pumps, penile prostheses, and penile injections (Ramage, 1998). These methods can all be problematic psychologically (Levine & Althof, 1997); as one researcher put it, "putting a needle in your penis is not everybody's idea of foreplay" (Dr. John Seely, quoted in Kolata, 2000). Some experts have argued that the success of Viagra is actually in part a result of the relatively new diagnostic term *erectile dysfunction* or ED. This medical-sounding term is apparently much more palatable to most men than the old term *impotence*, which seemed to imply that the client's masculinity was inadequate.

Some critics have complained that the current emphasis on developing medications to treat erectile disorder reflects a sexist overemphasis on men's potency problems at the expense of emphasizing help for the millions of women with sexual dysfunctions (Kolata, 2000; Leiblum & Sharon, 2001; Segraves & Althof, 1998). However, as it became clear that the market for treating female dysfunctions was potentially lucrative, drug companies began testing Viagra and other compounds as possible treatments for female sexual dysfunctions such as hypoactive sexual desire (Stahl, 2001; Warnock et al., 1997). Interestingly, these medications have not proven effective for increasing women's levels of sexual desire (Seidman, Roose & Rosen, 2004), supporting the contention of some experts that female desire is mediated more by emotional stimuli than by purely biological factors such as genital blood flow.



Viagra salesman Former U.S. Senator Bob Dole has helped reduce the stigma surrounding erectile problems by discussing his own use of Viagra in an advertising campaign.

The causes of erectile disorder include a wide range of psychological and biological factors. Medical conditions (such as diabetes), certain medications, smoking, poor diet, and psychological conflicts can all interfere with the blood flow necessary to produce and maintain an erection (Ramage, 1998). The absence of erections during sleep, when they normally occur, suggests a biological etiology. *Nocturnal penile tumescence* (erection) can be assessed with a *snap gauge* that is fastened around the penis at bedtime and will break if an erection occurs. Medications like Viagra can be helpful by enhancing blood flow regardless of whether the underlying cause of the problem is psychological or medical (McCarthy & McCarthy, 1998; Weisberg et al., 2001). Psychotherapy can also be helpful in treating psychologically based cases of erectile dysfunction (Althof, 2000; Masters, Johnson, & Kolodny, 1986).

Female orgasmic disorder Persistent delay in, or absence of, orgasm following a normal sexual excitement phase, causing distress or interpersonal difficulty.

Male orgasmic disorder Persistent delay in, or absense of, orgasm following a normal sexual excitement phase, causing distress or interpersonal difficulty.

Premature ejaculation Persistent ejaculation with minimal sexual stimulation before, on, or shortly after penetration and before the person wishes it, causing distress or interpersonal difficulty.

Orgasmic Disorders

Female orgasmic disorder (formerly known as *inhibited female orgasm*, and sometimes referred to as *anorgasmia*) involves persistent and distressing difficulties in reaching orgasm despite sexual excitement and appropriate sexual stimulation (APA, 2000). This is believed to be a fairly common dysfunction, affecting perhaps 7 to 10% of women (Simons & Carey, 2001). It is important to note that difficulty in achieving orgasm is only considered a dysfunction when it occurs persistently despite adequate sexual stimulation (Charlton & Quatman, 1996). Sexual intercourse, by itself, is *not* assumed to provide adequate stimulation; in fact, it is estimated that only about half of women regularly have orgasms during intercourse (Baumeister, 2000; Baumeister et al., 2001; Laumann, Paik, & Rosen, 1999). Largely through the work of Masters and Johnson, it has become more widely known and accepted that most women require direct clitoral stimulation to reach orgasm (Masters & Johnson, 1970). Prior to this, women who did not regularly reach a climax during sexual intercourse were often assumed, unfairly, to be dysfunctional, and the diagnosis became controversial as a result. As currently defined, women with female orgasmic disorder have difficulty coming to climax even with direct clitoral stimulation through manual or oral sex, or masturbation (APA, 2000; Carnes, 1998; Leiblum, 2000).

Male orgasmic disorder involves the same scenario in men—persistent difficulty reaching orgasm despite adequate stimulation (APA, 2000). It appears to be somewhat less common than the female variant, affecting about 3% of men (Simons & Carey, 2000). For both men and women, the orgasmic dysfunctions often seem to be caused by emotional conflicts over sexuality, and about orgasm in particular, which can be associated with a frightening loss of control. However, physical conditions and medications may also play a role. For example, many of the widely prescribed selective serotonin reuptake inhibitor (SSRI) antidepressant medications can cause delay in or absence of orgasm (Coleman et al., 2001; Wise, 1999).

Premature ejaculation is probably the most common male sexual dysfunction, affecting as many as 29% of all men (Athanasiadis, 1998; Metz & Pryor, 2000). It is defined as a persistent tendency to ejaculate with minimal sexual stimulation, before the man wishes it, and often before sexual intercourse has begun (APA, 2000; Kaplan, 1995). In making this diagnosis, clinicians have to take into account that occasional premature ejaculation is very common, especially in younger and sexually inexperienced men, in novel sexual situations, and after long periods without ejaculation (Leiblum, 2000). When premature ejaculation occurs regularly, however, it can be quite distressing and can lead to avoidance of sexual relationships (APA, 2000; Athanasiades, 1998).

Many experts argue that there has not been enough sound research using standard criteria for assessing premature ejaculation, resulting in a limited understanding of its causes (Athanasiadis, 1998; Rowland, Cooper, & Schneider, 2001). However, most agree that a variety of psychological and biological factors can contribute to premature ejaculation, including emotional problems, relationship problems, poor sexual skills, neurological factors, illnesses, physical injuries, and medication side effects (Malatesta

& Henry, 2001; Metz & Pryor, 2000). Accordingly, many different interventions can be appropriate, and treatment must be geared to the particular situation of the client (Metz & Pryor, 2000). Psychological interventions can include everything from traditional psychotherapies for resolving contributing emotional problems to more focal sex therapies. These focal treatments include individual relaxation, sexual self-pacing and pubococcygeal muscle training, and direct work with couples (Metz & Pryor, 2000; Pridal & Joseph, 2000). Two widely used techniques with couples are the *stop-start* method, in which the couple repeatedly decreases stimulation just before ejaculation would occur, and the *penile squeeze* technique, in which the client or partner gently squeezes the head of the penis to prevent ejaculation (Kaplan, 1995; Masters, Johnson, & Kolodny, 1986; Seidman, Roose & Rosen, 2004). While many researchers report very high success rates with these techniques, their long-term effectiveness has been questioned (Athanasiadis, 1998). Medications, especially serotonergic drugs such as the SSRIs, can be helpful in delaying orgasm in cases in which psychological/behavioral methods are not effective (Metz & Pryor, 2000; Seidman, Roose & Rosen, 2004).

Sexual Pain Disorders The sexual pain disorders are somewhat distinct from the other sexual dysfunctions in that they are not defined by the phases of the sexual response cycle. Rather, they involve recurrent experiences of physical pain during sex that interfere with sexual activity and cause distress.

Vaginismus Persistent involuntary spasm of the musculature of the outer third of the vagina that interferes with sexual intercourse, causing distress or interpersonal difficulty.

Dyspareunia Persistent genital pain associated with sexual intercourse, causing distress or interpersonal difficulty.

Vaginismus refers to recurrent muscle spasms in the outer third of the vagina, which interfere with sexual intercourse by making penetration difficult or painful (APA, 2000). Research on vaginismus has been limited, and no reliable prevalence data are available (Reissing,Yitzchak, & Khalife, 1999); however, Masters, Johnson, and Kolodny (1986) estimated that 2 to 3% of postadolescent women experience vaginismus. Some experts suggest that vaginismus can be best understood as a phobia of vaginal penetration, in which the fear of physical and/or emotional pain from intercourse leads to the muscle contractions, but the relationships among these factors remain somewhat unclear (Leiblum, 2000). Reports that vaginismus is easily resolved with vaginal dilation techniques and psychosexual education appear to be exaggerated (Reissing et al., 1999). When treatment does succeed, it seems that the crucial ingredients are attention to both the physical (such as genital pain) and psychological (for example, a history of sexual abuse) aspects of the problem.

Dyspareunia (dis-par-OON-ya) involves recurrent genital pain associated with sexual intercourse in a man or woman. Most cases of painful intercourse (which is a far more common problem for women than men) are caused by physical factors such as genital infections or scarring, lack of lubrication, medication side effects, or in some parts of the world, culturally sanctioned "female circumcision" in which parts of the female genitals are cut and damaged as a childhood or adolescent rite of passage (El-Defrawi et al., 2001; Graziottin, 2001). However, the DSM-IV-TR specifically excludes medical causes in the diagnosis of dyspareunia proper (APA, 2000), which is meant to be reserved for cases in which the pain is partially or entirely caused by psychological factors. Nonetheless, the term *dyspareunia* is frequently used—even by health professionals—to refer more broadly to any condition of recurrent sexual pain. Common physical causes of sexual pain are usually investigated first, with further exploration of emotional factors or more unusual physical causes if necessary (Graziottin, 2001).

BRIEF SUMMARY

- The work of Krafft-Ebing, Freud, and others paved the way for the current DSM-IV-TR classification of sexual disorders.
- The DSM-IV-TR identifies three types of sexual disorders: sexual dysfunctions, paraphilias, and gender identity disorder.

- The sexual dysfunctions are recurrent, distressing, and/or impairing problems in the desire, arousal, and orgasm phases of the normal human sexual response cycle.
- The sexual desire dysfunctions include hypoactive sexual desire and sexual aversion.
- The sexual arousal dysfunctions include female arousal disorder and male erectile disorder.
- The orgasmic disorders include female orgasmic disorder, male orgasmic disorder, and premature ejaculation.
- Sexual pain disorders include vaginismus and dyspareunia.
- Sexual dysfunctions can be caused by a wide variety of psychological and biological factors. Most can be effectively treated with psychotherapy and/or medications.

Critical Thinking Question Given that they are so common, do you think the sexual dysfunctions should be considered mental disorders and listed in the DSM-IV-TR?

Female circumcision This 16-year-old girl in northern Kenya has just undergone a ritual circumcision in which the clitoris and sometimes other parts of the female genitalia are removed. Such practices can be traumatizing, frequently lead to sexual dysfunctions, and are viewed by many as a human rights violation.

The Paraphilias

The **paraphilias**, formerly known as the *perversions*, are less common than the sexual dysfunctions, but they are considered more pathological—true disorders rather than dysfunctions. While the sexual dysfunctions involve persistent sexual difficulties in the context of normal sexual relationships, the paraphilias involve disordered sexual relationships and aberrant sexual preferences. A paraphilia consists of sexual arousal by, and sexual preference for, atypical sexual "objects" (or "stimuli") (see Table 10.3). In the most common paraphilias, the atypical stimuli involve either nonhuman objects (such as inanimate objects or animals), hostile rather than affectionate human relationships (such as sexual sadism), or nonconsenting sexual relationships (for example, with children). Because many paraphilias involve nonconsensual sexual activity, several of them, such as exhibitionism, voyeurism, and pedophilia, are illegal. As a result, people with paraphilias often seek treatment after they have been caught, prosecuted, and either ordered or encouraged to do so by legal authorities (Brockman & Bluglass, 1998). Others have been pressured to get help by spouses or other family members. It is relatively unusual for individuals with paraphilias to seek help on their own (Doerman, 1999). These individuals are often distressed by their paraphilias, but their motivation to seek treatment is often diminished by feelings of shame and/or reluctance to give up their primary form of sexual pleasure.

One of the most difficult problems involved in defining and classifying the paraphilias relates to the core concept of the ***continuum between normal and abnormal behavior***. Many of the sexual practices that are central to the paraphilias are considered normal when practiced consensually and in moderation (Furnham & Haraldsen, 1998; Stoller, 1985b, 1989). For example, it is relatively common for people to include mildly exhibitionistic, voyeuristic, and sadomasochistic practices in their sex lives (Kinsey et al., 1953; Strauss & Donnelly, 1994). But several things distinguish these normal activities from a paraphilia. First of all, in a paraphilia, the sexual behavior in question is *persistent* (the DSM-IV-TR requires at least six months' duration), is often nonconsensual, and may be necessary for sexual arousal (APA, 2000). Second, to meet the criteria for a paraphilia in the DSM-IV-TR, a sexual urge or fantasy pattern must either be distressing to the individual or cause impairment in his or her life (APA, 2000; Brockman & Bluglass, 1998). Thus, it is the compulsive, maladaptive, and extreme quality of paraphilias that distinguish them from variations of normal sexuality.

TABLE 10.3 Diagnostic Criteria for the Paraphilias

Exhibitionism ■ Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving the exposure of one's genitals to an unsuspecting stranger.

Voyeurism ■ Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving the act of observing an unsuspecting person who is naked, in the process of disrobing, or engaging in sexual activity.

Fetishism ■ Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving the use of nonliving objects.

Transvestic fetishism ■ Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving cross-dressing in a heterosexual male.

Sexual sadism ■ Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving acts in which a victim's psychological or physical suffering is sexually exciting.

Sexual masochism ■ Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving the act of being humiliated, beaten, bound, or otherwise made to suffer.

Pedophilia ■ Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving sexual activity with a prepubescent child or children.

Frotteurism ■ Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving touching and rubbing against a nonconsenting person.

Paraphilias not otherwise specified (NOS) ■ Includes necrophilia (sexual interest in dead bodies), zoophilia (animals), coprophilia (feces), urophilia (urine), and telephone scatologia (obscene telephone calls).

Adapted from DSM-IV-TR (APA, 2000)

The prevalence of paraphilias appears to have increased in recent decades (Rosler & Witzum, 2000; Weiner & Rosen, 1999). While epidemiological data suggest that the paraphilias are much less common than sexual dysfunctions, the popularity of paraphilic pornography indicates that actual rates of paraphilia are much higher than official estimates (APA, 2000). Interestingly, paraphilias are found almost exclusively in men, about half of whom are married (Brockman & Bluglass, 1996; Money, 1986; Rosler & Witztum, 2000). While the reasons for this striking gender disparity are not fully understood, we will review some theories about it below. In addition, while there have been references to paraphilic sexual practices in cultures around the world for millennia, the paraphilias appear to be found primarily in Western cultures (de Silva, 1999). Paraphilias typically begin in adolescence, and rates of youthful paraphilia-related criminal offenses are on the rise (Brockman & Bluglass, 1996).

Over the years, researchers have offered various lists of common paraphilias; Money (1986), for example, described 30 different types. In the DSM-IV-TR, eight specific paraphilias are listed (see Table 10.3), along with a residual category (paraphilia not otherwise specified) that allows for the diagnosis of unusual forms of paraphilia (APA, 2000). Frequently, individuals with one paraphilia also have others (de Silva, 1999).

You may be surprised to note that rape is not included as a DSM-IV-TR paraphilia, even though it would seem to fit the definition of aberrant, nonconsensual sexual behavior. The exclusion of rape as a separate diagnosis in the DSM-IV-TR has been controversial and puzzling even to some experts on sexual disorders, although others argue that it is sufficient that rape is included as a subtype of the paraphilia known as sexual sadism (Horley, 2001; Hudson & Ward, 1997; Laws & O'Donahue, 1997). Part of the reason that rape has not been included separately relates to a concern that the diagnosis could be used by rapists as a legal defense (Boehnert, 1989; Hudson & Ward, 1997; Noffsinger & Resnick, 2000), although this concern could also apply to other illegal paraphilias, such as pedophilia, which *are* listed in the DSM-IV-TR (Eads, Shuman, & DeLipsey, 2000; Marshall, 1997). Another argument against including rape as a separate diagnosis is that some scientific evidence supports the view that rape is motivated more by hostility toward women than by aberrant sexual arousal. For example, Lalumiere and Quinsey (1996) found that antisocial tendencies were more consistently characteristic of sexually coercive males than deviant sexual arousal patterns. We now turn to a description of the paraphilias listed in the DSM-IV-TR.

Exhibitionism Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving the exposure of one's genitals to an unsuspecting stranger.

Voyeurism Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving the act of observing an unsuspecting person who is naked, in the process of disrobing, or engaging in sexual activity.

Exhibitionism

Exhibitionism involves exposing one's genitals to an unsuspecting stranger. In the DSM-IV-TR, the criteria for exhibitionism consist of six months or more of recurrent, intense, sexually arousing behaviors (or distressing/impairing fantasies and urges) involving genital exposure (APA, 2000). Exhibitionism is generally considered the most common paraphilia (Brockman & Bluglass, 1998; Murphy, 1997). To the lay public, exhibitionists are known as "flashers." The stereotype of an exhibitionist is that of a "dirty old man" who opens his raincoat to expose himself to little girls. In fact, most men diagnosed with exhibitionism are young to middle-aged, and sexual exposure to children is more characteristic of pedophilia than exhibitionism (Hall et al., 2000; Weiner & Rosen, 1999). When an elderly person exposes himself or herself, it is most likely a result of disinhibition due to a dementia (Chapter 14) and not a paraphilia (Brockman & Bluglass, 1998; Jordan & Stein, 2000).

Typically, exhibitionists become aroused and masturbate during or after exposing themselves. Exhibitionists rarely seek out actual contact with the women to whom they expose themselves. Rather, they typically describe a wish to shock, humiliate, or sexually arouse women they encounter as strangers (APA, 2000; Black et al., 1997; Nye, 1999). While individuals with exhibitionism are often thought to be fearful, shy, passive, and avoidant of real contact with women, researchers have not been able to identify a clear personality profile for people with the disorder (Laws & O'Donohue, 1997; Murphy, 1997). The standard advice to victims of exhibitionism is to remain calm, walk away, and report the incident to the police (Marshall, 1997).

Voyeurism

Voyeurism can be thought of as the opposite of exhibitionism, as voyeurism involves the practice of watching unsuspecting others who are disrobing or engaging in sex. Voyeurism, sometimes also referred to as *scoptophilia* (literally, the "love of seeing"), is commonly understood in the figure of the "Peeping Tom" who peers into strangers' bedrooms at night (Brockman & Bluglass, 1998).

Obviously, experiencing sexual arousal from seeing others naked or having sex, in and of itself, is common and not abnormal—as the television and film industries know well. But voyeurism differs, in several respects, from this normal reaction. The DSM-IV-TR specifies that in order to be diagnosed with voyeurism, an individual must have experienced a period of six months or more of recurrent, intense sexual pleasure from watching nonconsenting others (or distressing/impairing fantasies and urges to do so).

Voyeurism
This painting, "Susanna Bathing," by Tintoretto (1518–1594) depicts a famous biblical scene of voyeurism, the practice of watching unsuspecting people for sexual purposes.
Tintoretto, "Susanna Bathing"

Usually the individual masturbates during the voyeuristic episodes, often with a fantasy involving the person or people observed. Voyeurism usually begins before age 15 and tends to become chronic (APA, 2000).

Fetishism Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving the use of nonliving objects.

Fetishism **Fetishism** consists of intense, recurrent sexual arousal involving inanimate objects. The DSM-IV-TR criteria for fetishism describe six months or more of distressing and/or impairing sexual urges or behaviors related to nonliving objects (APA, 2000). Common fetish objects include female undergarments, other articles of clothing such as shoes, and rubber or leather objects. The individual will typically masturbate alone with the object or ask a sexual partner to wear it (Charlton & Quatman, 1997; de Silva, 1999). Any object can be the focus of fetishism, and there are published reports of clients with fetishes involving objects ranging from pacifiers to radio static (Junginger, 1997; Stoller, 1987). (Table 10.4 lists some Internet forums with primarily fetish themes.) Some researchers also include compulsive sexual arousal to specific body parts within the definition of fetishism (such as a foot, or hair, fetish). An unusual variant of this type of fetish involves sexual arousal related to amputees. Wise and Kalyaanam (2000) describe the case of a 49-year-old accountant with a lifelong amputee fetish who was easily able to find pornographic materials to satisfy his fetish over the Internet. Eventually, this individual cut off his own penis, a practice that has also been reported in other cases of amputee fetishism (Wise & Kalyanam, 2000).

Like exhibitionism and voyeurism, fetishism is an extreme form of a normal sexual arousal pattern (Mason, 1997). Sexual arousal in response to seeing undergarments or body areas is a part of normal sexual response, and the lingerie, perfume, and hair care industries capitalize on this natural tendency. In fact, the word "fetish" in common usage refers not just to the sexual disorder but to any object imbued with special power. As a result, drawing the line between normal sexual response and fetishism can be difficult (Brockman & Bluglass, 1998; Junginger, 1997). However, one key difference between normal arousal to female undergarments, for example, and an underwear fetish is that in the latter case the undergarments actually become necessary, or at least strongly preferred, for sexual arousal and performance to occur (APA, 2000).

TABLE 10.4 Sex Forums on the Internet with Primarily Fetish Themes

The following is a highly abbreviated list of alternative sex forums with fetish themes found on the Internet.

Pantyhose	Amputee	Hair
Underwear	Diapers	Fur
Jock strap	Feet	Fat
Uniforms	Latex	Bottles
Wax	Leather	Vegetables
Smoking	Trees	Tools

Transvestism Individuals with transvestism are motivated to cross-dress because it provides sexual satisfaction.
Bill Aron/Photo Researchers, Inc.

Transvestic Fetishism **Transvestic fetishism**, or **transvestism**, is a particular form of fetishism in which men become sexually aroused by *wearing* women's clothing. This form of cross-dressing for sexual arousal is distinct from cross-dressing due to *gender dysphoria* (the wish *to be* the opposite sex, as in *gender identity disorder*, which is discussed later in the chapter), although the former sometimes evolves into the latter (APA, 2000; Zucker & Blanchard, 1997). Transvestism should also be distinguished from cross-dressing for other purposes that do not involve sexual arousal. In transvestism, the individual, typically a heterosexual man, becomes aroused by cross-dressing. He may simply wear female underwear under his normal attire, or he may dress completely as a woman, commonly referred to as being "in drag" (APA, 2000). Some individuals experience maximum arousal by going out in public cross-dressed, while others prefer to cross-dress in private. Frequently, the sexual arousal seems to be associated with fantasies of being female (*autogynephilia*, or love of oneself as a woman) or as having characteristics of both sexes (Person & Ovesey, 1978; Zucker & Blanchard, 1997), although transvestites do not wish to literally become women.

Transvestic fetishism (transvestism) Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving cross-dressing in a heterosexual male.

Sexual sadism Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving acts in which a victim's psychological or physical suffering is sexually exciting.

Sexual masochism Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving the act of being humiliated, beaten, bound, or otherwise made to suffer.

Sexual Sadism **Sexual sadism** refers to the recurrent need to imagine, or act out, the infliction of pain on a suffering victim in order to become sexually aroused. Once again, it is important, though not always easy, to distinguish normal variations of sexual "play" from a paraphilia. Many people are aroused by aggressiveness as part of sex. For example, Kinsey and colleagues (1953) found in their groundbreaking surveys of sexual habits that half of Americans enjoyed mildly sadomasochistic activities such as biting and spanking during sex (see Box 10.2 on Sexual Masochism). In a more recent survey of college students, Straus and Donnelly (1994) found that 61% of the students reported sexual arousal while imagining or participating in similar activities. However, in sexual sadism the infliction of physical or psychological pain (for example, humiliation) is a recurrent, and often necessary condition of sexual arousal and it causes distress and/or impairment for the sexual sadist (APA, 2000). In some cases, the individual has not acted on these fantasies and urges but is troubled by them. In other cases, fantasies are acted out with either consenting or nonconsenting others. Sadistic sexual behaviors can include a wide range of physical practices such as restraining, slapping, whipping, burning, and beating, and/or psychological activities such as dominating, humiliating, and degrading the other person (APA, 2000; Alison, Santtila, & Sandnabba, 2001). In severe cases, especially in conjunction with antisocial personality disorder, sexual sadism may involve rape and other acts that can seriously injure or even kill the victim.

Sexual sadism Sexual sadism and masochism sometimes involves a woman in the role of a "dominatrix" who humiliates, and sometimes physically hurts, her sexual partner. The dominatrix may engage in such behavior for her own sexual pleasure or when asked or paid to do so by a sexual masochist.
©Kerin Rochill/Stockphoto.com

Pedophilia Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving sexual activity with a prepubescent child or children.

Frotteurism Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving touching and rubbing against a nonconsenting person.

Frotteurism Frotteurism usually occurs in crowded places such as subways.
Robert Brenner/PhotoEdit

Sexual Masochism In contrast to sexual sadism, **sexual masochism** involves the need or strong preference for physical or psychological suffering in order to produce sexual arousal. Typical behaviors and fantasies include being bound, forced, beaten, cut, urinated or defected upon, berated, or humiliated (Brockman & Bluglass, 1998). In some cases, the individual only fantasizes about masochistic situations during masturbation or sex; in other cases, masochism is acted out. One particularly dangerous form of masochistic sexual behavior is the deprivation of oxygen (hypoxia) by strangulation, noose, plastic bag, or other means (APA, 2000). This sexual practice causes up to 200 deaths per year in England (Brockman & Bluglass, 1998), and similar fatality rates have been reported in the United States, Australia, and Canada (APA, 2000).

Sexual masochism is one of the few paraphilias commonly diagnosed in women, although it is still 20 times more common in men (APA, 2000). As with other paraphilias, it can be difficult to distinguish the disorder of sexual masochism from "normal" masochistic sexual interests pursued in the context of a safe, consenting relationship. We include in Box 10.2 an excerpt from an essay by the writer Daphne Merkin about her own sexual masochism in which she raises questions about the boundary between normal and abnormal sexual masochism.

Pedophilia **Pedophilia** (from the Greek for "child love") involves sexual attraction to, or sexual activity with, prepubescent children. The DSM-IV-TR defines pedophilia in terms of recurrent sexual behavior with, or distressing/impairing fantasies and urges toward, prepubescent children on the part of someone at least 16 years old and 5 years older than the child (APA, 2000). While some experts have questioned various aspects of the DSM-IV-TR criteria (such as whether the "recurrent" criterion is too restrictive; see Marshall, 1997), the DSM-IV-TR provides the most widely used formal definition of pedophilia. Individuals who meet DSM-IV-TR criteria for pedophilia may target boys, girls, or both, but they more commonly seek boys (Blanchard et al., 1999). Some experts believe that young boys are the more common targets because men with pedophilia are trying to find sexual "partners" who are as different as possible from adult women in terms of age and gender (Blanchard et al., 1999). Victims may be family members, or strangers to whom the pedophile gains access by "befriending" the child or winning the trust of adults in the child's life. The sexual contact can include anything from watching the child undress to fondling to actual penetration. Pedophiles typically rationalize their behavior as harmless, as good for the child, or as something the victim wanted (APA, 2000; Brockman & Bluglass, 1996). Often, the victims are threatened in some way so as to prevent them from telling others about the molestation.

While no reliable data exist on the prevalence of pedophilia, it is clear that child sexual abuse is pandemic and a national crisis in the United States (Laws & O'Donohue, 1997). Current estimates are that between 100,000 and 500,000 children in the United States are sexually molested by adults every year, resulting in 10 to 20% of all children having experienced some type of sexual abuse by the time they reach adulthood (Harvard Mental Health Letter, 2004; Rosler & Witztum, 1998). Pedophiles appear to be a diverse group, with no clear personality profile (Bickley & Beech, 2001). The vast majority of pedophiles are men, but pedophilia is one of the few paraphilias in which a significant percentage of cases involve women.

Frotteurism **Frotteurism** (sometimes also referred to as *toucheurism*) is less well known than the other DSM-IV-TR paraphilias. A frotteur (almost invariably male) rubs up against or touches a stranger (usually a female) for sexual gratification. Typically, frotteurism occurs in a crowded place such as subway trains or busy sidewalks where

BOX 10.2 Sexual Masochism in a Woman: A First-Person Account

"UNLIKELY OBSESSION" *by Daphne Merkin*

Daphne Merkin, a well-known writer, describes her own struggle with masochistic sexual tendencies in an excerpt from her article "Unlikely Obsession" which was published in *The New Yorker Magazine*.

All the while, I continued to read and dream, feeding my appetite. In my mid-twenties, I met a man who had fairly advanced sadistic skills, albeit of a psychological rather than a physical variety. His wish to control me—to offer and then withdraw affection on an erratic and hurtful schedule of his own devising—coincided with my secret wish to be mastered, but it never occurred to him to spank me, and I never asked. (I was undoubtedly afraid of what I might unleash: I had visions of being splattered against the wall.) Our relationship may not have taken on an explicitly S&M aspect, but it was riddled with those impulses: once, after a fight, he ordered me to get down on my knees before his standing, undressed self; another time, he lay on the bed and languidly suggested that I crawl across the floor in order to win back his favor. Although these were not things I wanted to be told to do on a regular basis, my mind read both of these demands as a signal for arousal. I experienced degradation (or, at least, a degree of degradation) as a thrill; there was no mistaking it. I wondered with growing anxiety how I would ever make do with less dubious forms of sexual engagement. Finally, in my late twenties, I admitted my wish to be spanked to a man who seemed distant from my world, and thus not in a position to assess how fitting or incongruous this wish might be with the rest of me. He was from the West Coast; to my intractably Manhattanite sensibilities, he might as well have hailed from Sri Lanka. Whereas I was accustomed to the edgy New York style, this man's way of looking at things seemed slower and less driven by the need to evaluate. He also had a receptive quality that made me think I could trust him with my fantasy, and, after we'd been going out for several months, I did. He appeared delighted at the prospect of implementing my wishes, and so it was that I found myself in the position I had been dreaming of for years: thrust over a man's knee, being soundly spanked for some concocted misdeed. (How much I liked those adverbs—"soundly," "firmly," "roundly," "thoroughly"—leading up to the most resonant verb I knew of in the English language.) The sheer tactile stimulation of it—the chastening sting—would have been enough to arouse me, but there was also, at last, the heady sense of emotional release: I was and was not a child; was and was not a sensual being; was and was not being reduced; was and was not being forced into letting go; was and was not the one in control. I had fantasized about this event for so long that in the back of my mind there had always lurked the fear that its gratification would prove disappointing. I needn't have worried: the reality of spanking, at least initially, was as good as the dream.

I eventually married this man, after dillydallying for six years. By then, sex between us had lost some of its sheen, and somewhere along the way I had begun to tire of the spankings; I found them too hard, and then again not hard enough, to excite me. If, as I have come to think, mine was an addictive personality, kept in line by the tight parameters of my upbringing and by some exertion of will, then spankings were my drug of choice: they were meant to blunt the edges of my existence. But the edges kept springing back into sight again, resilient as weeds. I had veered in and out of depression since adolescence, and began to think that my depression was intimately linked to the whole spanking thing. (What I actually suspected was that I wanted to be spanked to death—transported out of my sorrow into a state of numbness, of permanent *un*feeling.) Then, too, I found that domesticity, with its dirty dishes and regular hours, didn't mesh particularly well with the role-playing agenda of erotic discipline, which required the sort of imaginative space that was compromised by the rut of daily life. A year after we married, I gave birth to a daughter; I was now a parent myself, attending to the needs of an imperious infant while fighting off freshly ignited feelings about the lack of mothering in my own childhood. The fantasy receded, its urgent claim on my imagination muted by the realization that I had to look toward the future, for my child's sake if not for my own.

I have no doubt that there are people who are into S&M—or believe that they are into it, which comes to the same thing—for the sophisticated experimentation, the "gourmet sex" of it. I suppose, too, that sadomasochism can be dispassionately viewed as a heightened paradigm for the discrepancies in power and control which run in a more diffuse fashion through all human relations. One can class such behavior as pathological or, with greater poetic license and less clinical judgment, as part of the infinite human variety, but I have come to believe that for me it was about nothing less gripping than stating and restating, in an adult arena, the emotional conditions of my childhood, where accepting pain was the price of affection. I believed in a magic trick, an impossible reversal: if you chose of your own free will to let someone hurt you, then all past hurt would be wondrously undone. "The desires of the heart," Auden observed, "are as crooked as corkscrews." I don't expect my own desires to ever straighten out completely, but I am beginning to see an opening in the maze—to see that I can rise to the occasion of erotic affection without first wrapping my arms around a punitive fantasy.

Excerpted from *The New Yorker Magazine*, February 26 and March 4, 1996 (pp. 98–100, 102–108)

quick escape is possible (APA, 2000). Frotteurists often fantasize about having a meaningful relationship with the victim, and they often engage in other kinds of paraphilic behaviors (Freund et al., 1997). Frotteurism is often treated lightly by the criminal justice system, a fact that is deplored by some researchers who see it as having some similarities to rape (Laws & O'Donohue, 1997).

Other Paraphilias The DSM-IV-TR also lists a category called *paraphilias not otherwise specified (NOS)*, which includes relatively rare behaviors that meet the definition of a paraphilia (APA, 2000) (see Table 10.5). *Necrophilia*, for example, involves sexual urges and activities with dead bodies. *Zoophilia* (or *bestiality*) pertains to sexual interest in animals (see Box 10.1). *Coprophilia* and *urophilia* involve sexual arousal to feces and urine, respectively. *Telephone scatologia* refers to compulsive sexual interest in making obscene telephone calls.

Related Disorders The phrase "sexual addiction" has been a focus of a great deal of recent attention and debate. While not found in the DSM-IV-TR, some experts argue that sexual addiction is a real and important syndrome of disordered sexuality (Carnes, 1990, 2000). The term *sexual addiction* overlaps with several other quasi-diagnostic labels such as "non-paraphilic hypersexuality" (Kafka & Hennen, 1999), "sexual dependence," "compulsive sexual behavior" (for example, compulsive promiscuity or masturbation), "pornography dependence," "on-line sexual dependence," "erotomania," or "erotic obsession" (Kaplan, 1996). The common denominator in these problems is seen as a loss of control over sexual behavior, much as the substance-use disorders are understood as a loss of control over substance use. Carnes estimates that 3 to 6% of the U.S. population suffers from some form of sexual addiction (Carnes, 1990, 2000). But other experts have questioned whether a syndrome of sexual addiction actually exists or whether the term *sexual addiction* is appropriate (Bancroft & Vukadinovic, 2004). While there is little empirical evidence to date on the subject, studies suggest that clients identified as "sex addicts" are a heterogeneous group, tending to suffer from other significant psychopathology, often including paraphilias (Black et al., 1997; Kafka, 1997; Kafka & Hennen, 1999).

BRIEF SUMMARY

- The paraphilias are more severe disorders than the sexual dysfunctions, involving aberrant sexual relationships and preferences.
- The most common paraphilias are exhibitionism, voyeurism, fetishism, sexual sadism, sexual masochism, pedophilia, and frotteurism.

Advantages/ limitations of diagnosis

Critical Thinking Question Some experts classify the paraphilias as addictive behaviors similar to substance misuse. The DSM-IV-TR does not. What do you think about this classification issue?

TABLE 10.5 Paraphilia NOS Categories and Their Erotic Focus

PARAPHILIA NOS CATEGORIES	EROTIC FOCUS	POSSIBLE OVERLAPPING PARAPHILIA CATEGORIES
Zoophilia (zooerasty, zooerastia, bestiality, bestiosexuality)	Animals	
Formicophilia	Small creatures	Zoophilia
Klismaphilia	Enemas	
Olfactophilia	Odors	
Mysophilia	Filth	
Urophilia (urolagnia, urophagia, ondinisme, renifleurism, undinism)	Urine	Fetishism, sexual masochism, sexual sadism
Coprophilia	Feces	
Vampirism	Blood	Sexual sadism
Telephone scatophilia	Obscenities over phone	Exhibitionism
Narratophilia	Obscene language with partner	
Chrematistophilia	Being charged or forced to pay for sex	
Saliromania	Soiling/damaging clothing or body	Sexual sadism
Vomerophilia	Vomiting	
Necrophilia	Corpses	
Somnophilia	Sleeping partner	
Hypoxyphilia	Reduced oxygen intake	Sexual masochism
Urethral manipulation	Insertion of objects	Fetishism, sexual masochism
Morphophilia	One or more body characteristics of partner	
Partialism	Focus on a body part	
Stigmatophilia	Partner tattooed, scarified, or pierced	
Abasiophilia	Lamed or crippled partner	
Acrotomophilia	Amputation in partner	
Apotemnophilia	Own amputation	Sexual masochism
Infantilism	Impersonating or being treated as an infant	Sexual masochism
Adolescentilism	Impersonating or being treated as an adolescent	Sexual masochism
Gerontophilia	Elderly partner	
Andromimetophilia	Andromimetic (a woman posing as a man) partner	
Gynemimetophilia	Gynemimetic (a man posing as a woman) partner	
Autogynephilia	Image of self as woman	Transvestic fetishism
Gynandromorphophilia	Cross-dressed feminized male	
Scoptophilia	Viewing sexual activity	Voyeurism
Mixoscopia	Viewing couple having intercourse	Voyeurism
Triolism	Observing partner having sex	Voyeurism
Pictophilia	Pornographic pictures, movies, or videos	Voyeurism
Autagonistophilia	Being observed/being on stage	
Hybristophilia	Partner must have committed an outrageous act or crime	
Kleptophilia	Stealing	

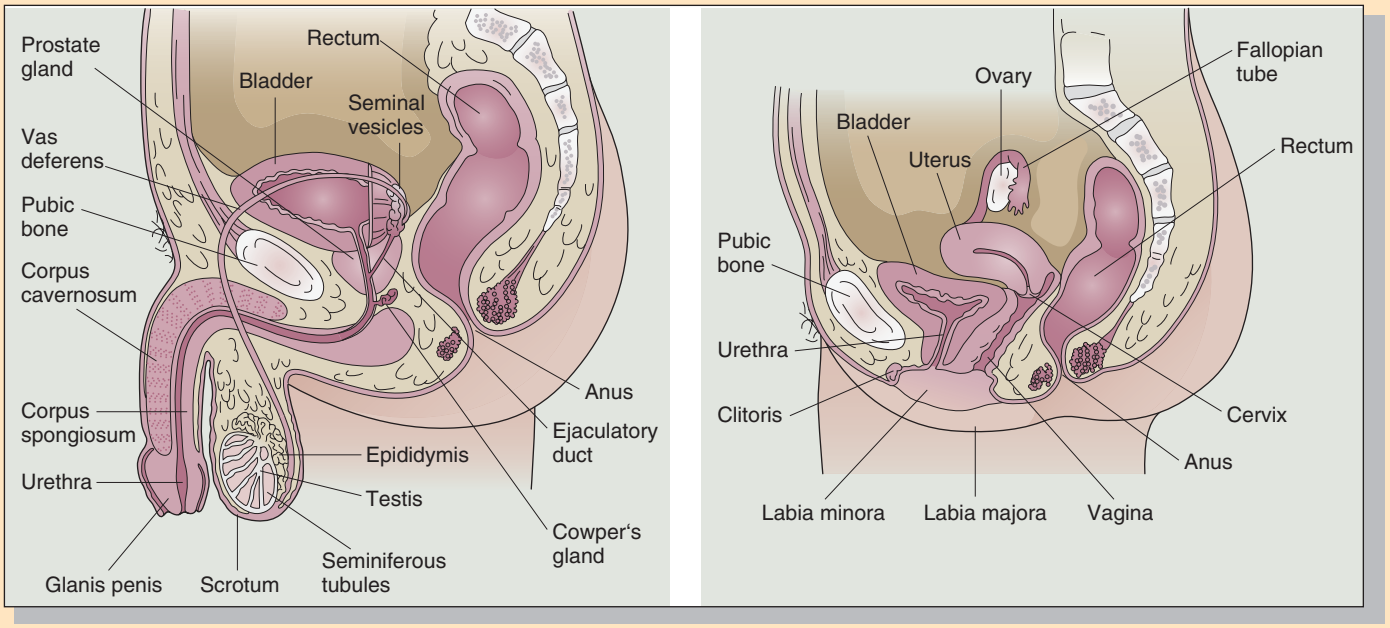
Adapted from Milner & Dopke, 1997

CHAPTER 10

VISUAL ESSAY

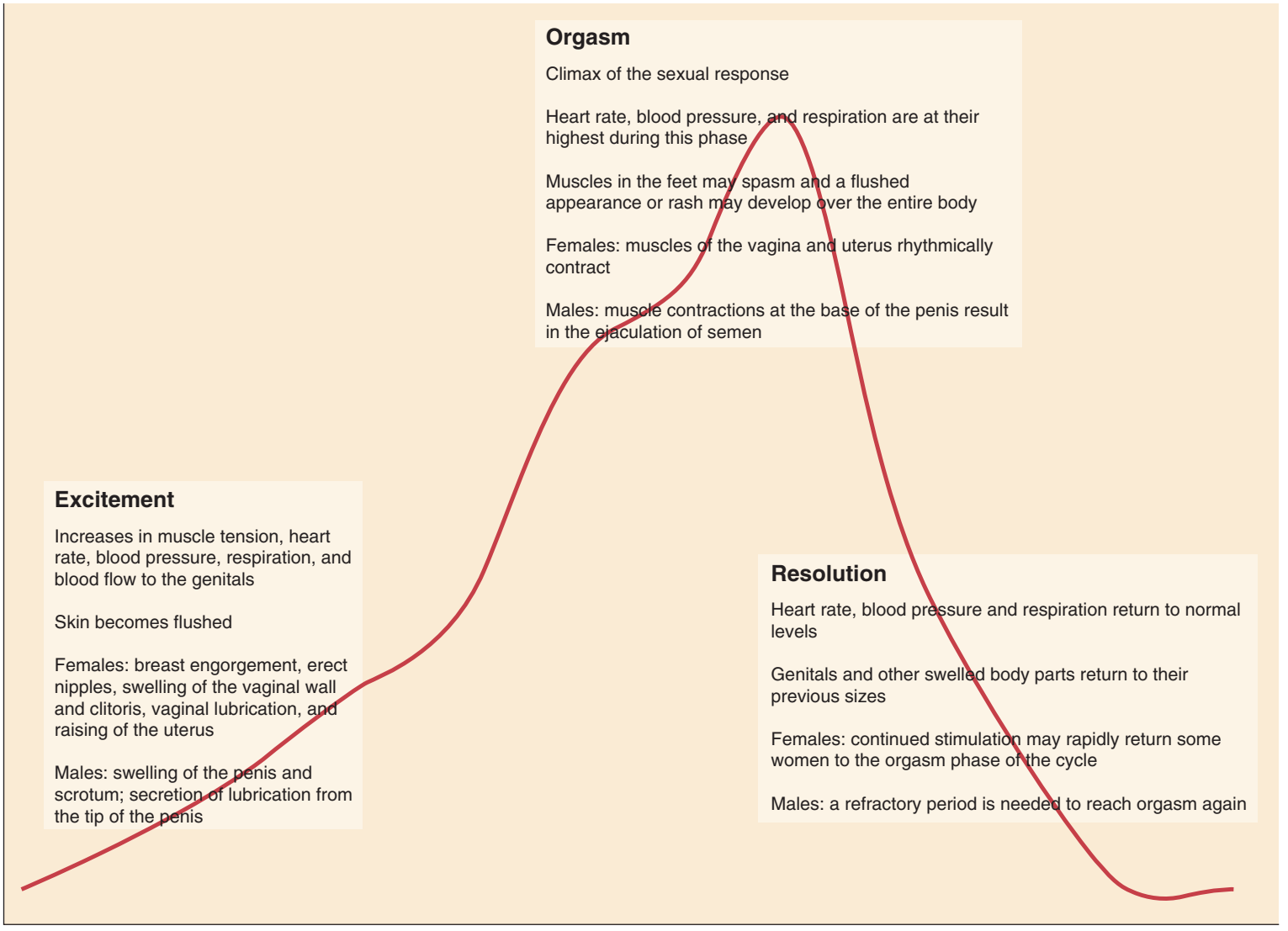
Physiological Aspects of Sexual Response

Masters and Johnson (1966), two prominent sex researchers, delineated a sexual response model upon which Kaplan (1995) based her slightly different four-stage model. Masters and Johnson's model highlights the *physiological* changes that characterize the last three phases (following sexual desire) of sexual behavior in humans: excitement, orgasm, and resolution. The *excitement phase* can last a few minutes to several hours. Physiological changes include the following: increases in muscle tension, heart rate, blood pressure, respiration, and blood flow to the genitals. The skin may develop a flushed appearance. For females, the excitement phase includes breast engorgement, erect nipples, swelling of the vaginal wall and clitoris, vaginal lubrication, and elevation of the uterus. For males, the excitement phase includes the swelling of the penis and scrotum and secretion of lubrication from the tip of the penis. The *orgasm phase* is the climax of the sexual response cycle and generally lasts only a few seconds. Blood pressure, heart rate, and respiration are at their highest during this phase. In women, the muscles of the vagina and uterus rhythmically contract. In men, muscle contractions at the base of the penis result in the ejaculation of semen. Muscles in the feet may spasm and a flushed appearance or rash may develop over the entire body. During the *resolution phase*, the body returns to its normal physiological level of functioning. Genitals and other swelled body parts return to their previous sizes. Whereas most men need some recovery time after orgasm to reach orgasm again (called the *refractory period*), some women are able to rapidly return to the orgasm phase of the cycle with continued stimulation.



The male and female sexual anatomy.

Sexual Response Phases



EXPLAINING AND TREATING SEXUAL DISORDERS: THE PARAPHILIAS

We have already touched on the issues of explanation and treatment for the sexual dysfunctions. In this section, we go into greater detail about how sexual abnormality is explained and treated, focusing on the paraphilias. While there are many theories about what causes paraphilias, and experts generally agree that theory is crucial to the explanation and treatment of these disorders (Drake & Ward, 2003; Ward et al., 2003), no fully satisfactory theory of paraphilias has yet been developed. Research studies have found that many individuals with paraphilias experienced childhood sexual traumas, such as sexual abuse, or other childhood stressors, such as attachment difficulties (Brockman & Bluglass, 1996; Sawle & Kear-Colwell, 2001). However, the various theoretical perspectives explain the connection between these childhood experiences and later paraphilias differently, as we will see. The most influential theoretical perspectives for explaining the paraphilias are the psychodynamic, cognitive-behavioral, and biological approaches.

Treatment of the paraphilias is generally considered very difficult, and most experts are not very optimistic about its effectiveness (Harvard Mental Health Letter, 2004). Not only do we have an incomplete understanding of these disorders, but in addition most individuals with paraphilias deny the seriousness of the problem and lack motivation to change (Charlton & Quatman, 1996). Violent sexual offenders tend to be especially unresponsive to treatment (Gacano, Meloy, & Bridges, 2000). Even those with nonviolent paraphilias usually do not seek treatment unless they have been confronted or arrested. As a result, group treatments, many of which use confrontive techniques to address clients' denial, are often used for paraphilias.

Countertransference The therapist's feelings about the client.

Clients with paraphilias can evoke difficult feelings in their therapists (technically known as **countertransference**, the therapist's feelings about the client), posing another barrier to successful treatment. Therapists have to be able to appropriately manage their own possible feelings of disgust, excitement, or moral disapproval that can easily arise when working with individuals with paraphilias.

The primary treatments for paraphilias are psychological, although biological treatments can play a significant role. Once again, it is important to keep in mind the core concept of the ***connection between mind and body***. A biological treatment can sometimes be useful even if the cause of a paraphilia is clearly psychological, and vice versa. The goal of treatment is generally to eliminate or significantly reduce the paraphilic *behaviors*, even though paraphilic urges and fantasies may continue (Wood, Grossman, & Fichtner, 2000). In order for a reduction in these behaviors to occur, it is often necessary to help the client develop substitute satisfactions through more "normal" sexual outlets (de Silva, 1999) and to develop a more generally satisfying life (Ward & Stewart, 2003). We now turn to a description of each explanatory approach, viewing each as a complementary component in accord with the ***principle of multiple causality***.

Psychodynamic Components

Psychodynamic explanations of paraphilias have significantly changed over time. As we have noted, Freud's first explanations of "perversions" emphasized the idea that perversions represented the direct expression in adulthood of "fixated" sexual interests from the developmental phases of childhood (for example, exhibitionism as a holdover from the phallic phase when children enjoy showing off their bodies) (Freud, 1905). Later, Freud and other psychodynamic theorists shifted their emphasis to the idea that "perverse" sexual behavior is a particular kind of defense mechanism in response to an underlying emotional conflict. For example, Freud argued that every boy (remember Little Hans?) goes through a phase of *castration anxiety* during childhood in which he

fears that his penis (or, symbolically, his emerging sense of masculinity) could be threatened by the big, powerful adults in his life. A mild version of this anxiety continues throughout life for most men, but some men remain, consciously or unconsciously, haunted by it, and they need constant reassurance that their genitals and their masculinity are intact. Freud believed that perverse sexual behaviors were designed, in a complex way, to provide this reassurance, and therefore could be seen as defense mechanisms against the fear of castration (or emasculation) (Fenichel, 1945; Freud, 1940a, 1940b). For instance, the exhibitionist reassures himself by revealing that his penis is still there for all to see; the fetishist symbolically equates his fetish object with a penis and therefore requires that it be present during sex; the pedophile seeks out children, which reassures him that he is bigger and more masculine than they are.

Contemporary psychodynamic explanations continue to emphasize the defensive function of paraphilias, but in a somewhat different way. The most influential contemporary psychodynamic theorist in this area, Robert Stoller, modified Freud's theories based on his study of hundreds of individuals with paraphilias. He argued that men with paraphilias all seemed to have one thing in common—childhood experiences in which they felt humiliated to such a degree that it profoundly threatened their sense of masculinity (Stoller, 1980, 1987). Some of the men Stoller studied experienced sexual abuse; others experienced less dramatic yet nonetheless emotionally traumatic events. In any case, these individuals developed a common defense mechanism for protecting themselves from feelings of humiliation and inadequacy: **turning passive into active** (also known as **identification with the aggressor**). In lay terms, these individuals "do unto others before others can do unto them" and attempt to humiliate others sexually. Thus, for Stoller, paraphilic behaviors are a form of hostility expressed sexually—specifically, a need to humiliate someone else in order to get revenge for past childhood humiliations. In most cases, the individual is not consciously aware of these motives but can become aware of them in therapy. For example, Charlton and Quatman (1997) describe a case involving a man whose symptoms met the criteria for sexual sadism; his greatest sexual excitement came from the idea of spanking a woman while having sex. The man's father had punished him in childhood by forcing him to wait in the bathroom naked while his father retrieved a belt with which to whip him. In therapy, this man discovered that his paraphilia was related to three remnants of his childhood experiences: "(1) his own hostility, now sexualized and directed toward doing to a woman what was done to him; (2) his own sense that he was less than adequate as a man; and (3) the rage that lay deep in his heart toward his father for beating him and toward his mother for allowing it to happen" (quoted in Charlton & Quatman, 1997). Stoller viewed all of the different forms of paraphilias as different "scripts" for unconsciously enacting an identification with the aggressor (Stoller, 1975, 1987). The exhibitionist, the voyeur, the pedophile, the frotteurist, the sadist, the masochist (by believing he or she secretly controls the sadist), and the fetishist (by imagining that the object has symbolic power) all wish to undo past humiliating experiences by humiliating someone else in the present.

Turning passive into active (identification with the aggressor) A defense mechanism involving doing unto others what was done to oneself.

Psychodynamic Interventions

Psychodynamic interventions for paraphilias focus on addressing the roots of the paraphilia in early sexual traumas; problematic emotions such as humiliation, shame, and rage; defense mechanisms against these painful feelings; and ineffective emotional (ego) and moral (superego) self-regulation (Harvard Mental Health Letter, 2004; Laws & O'Donohue, 1997; Stoller, 1975).

The psychodynamic approach has the advantage of dealing with the problem in depth, but the typically nondirective nature of psychodynamic interventions can also be problematic with clients who are unmotivated or behaving in aggressive or

self-destructive ways that might require a more structured approach. In order to motivate clients to collaborate in therapy, psychodynamic interventions for paraphilias emphasize the importance of establishing a strong *therapeutic alliance*, the collaborative bond between client and therapist (Kear-Colwell & Boer, 2000). This can be especially challenging given the ambivalence many paraphilic clients have about treatment, and the fact that many legal jurisdictions require that therapists break the normal guarantee of therapeutic confidentiality and report certain sexual behaviors, such as child abuse, to government authorities (Charlton & Quatman, 1996).

Cognitive-Behavioral Components

Cognitive-behavioral perspectives on paraphilias focus on two familiar principles: *classical (or Pavlovian) conditioning*, and *social learning* (Brockman & Bluglass, 1996; Laws & O'Donohue, 1997). In many ways, the cognitive-behavioral explanation of paraphilias is similar to the cognitive-behavioral explanation of phobias: Both can be conceptualized as a physical reaction (sexual arousal, or fear) occurring in response to an inappropriate stimulus (something that would not normally arouse sexual excitement or fear). The theory of classical conditioning can explain these abnormal "pairings" as the product of accidental, automatic learning. Remember that when a "neutral" stimulus is coincidentally present and associated with an emotional reflex, the two can become powerfully and lastingly connected in the mind. Just as hearing a loud noise (the *unconditioned stimulus*) in the presence of a rat (the *neutral stimulus*) made Little Albert afraid of rats (that is, the rats became a *conditioned stimulus*), sexual arousal in the presence of an inanimate object could theoretically produce a fetish. Behavioral theorists have described numerous cases in which accidental learning of this kind seemed to lead to the development of various paraphilias (Laws & Marshall, 1990; Marshall & Eccles, 1993).

Another cognitive-behavioral process relevant to the development of paraphilias involves social learning (Bandura, 1999). Children's behaviors are shaped not only by classical and operant conditioning but also through their observations of others. Children who observe other people behaving in sexually deviant ways (for example, observing a sexually abusive parental relationship), children who lack the social and cognitive skills for relating in a sexually appropriate manner, and children who are rewarded for inappropriate sexual behavior (for example, children encouraged to view pornography) all can develop a tendency toward paraphilic behaviors (Nichols, 1998; Pithers et al., 1998).

Behavioral and Cognitive Interventions

Using the principles of classical and operant conditioning, behavioral interventions attempt to alter learned, maladaptive patterns of deviant sexual arousal, and to replace them with new, more appropriate patterns (Brockman & Bluglass, 1998). Paraphilic arousal tendencies are first assessed using a *penile plethysmograph*, which measures penile responses to various paraphilic stimuli (a process known as **phallometric assessment**). While the reliability and validity of phallometric assessment are not well established (APA, 2000; Laws, 2003), some experts find that it can still be a useful tool in designing behavioral treatments. Once a client's deviant sexual arousal patterns have been established, classical and operant-conditioning principles can be employed to attempt to change them. Behavioral treatment techniques include *aversion therapies*, in which electric shocks or noxious odors are paired with deviant sexual thoughts (Laws & O'Donohue, 1997; Wood et al., 2000). *Covert sensitization*, another conditioning technique, involves having the client imagine unpleasant consequences, such as public humiliation, or a prison sentence, in connection with his or her paraphilic urges (Wood et al., 2000). Two additional conditioning methods are *systematic desensitization* and **masturbatory satiation** (or **orgasmic reconditioning**). In the former, the client

Phallometric assessment Measurement of penile responses to various stimuli.

Masturbatory satiation (orgasmic reconditioning) A behavioral treatment for paraphilias in which the client masturbates to "normal" sexual stimuli to reinforce this behavior.

learns to relax, rather than respond erotically, to problematic sexual stimuli, just as a phobic client can learn to relax in the presence of a phobic stimulus through systematic desensitization (as discussed in Chapter 4) (Wood et al., 2000). The latter technique relies on the powerful reinforcing properties of a sexual orgasm. Clients are asked to masturbate to "normal," rather than paraphilic, fantasies to reinforce "normal" fantasies with the pleasure of sexual climax (Laws & Marshall, 1991; Laws & O'Donohue, 1997). All of these techniques rely on a combination of classical and operant conditioning principles. Behavioral interventions have been shown to reduce paraphilic behaviors in some studies (Wood et al., 2000), but their general effectiveness has not been established (Harvard Mental Health Letter, 2004), and ethical concerns have been raised about the potential coerciveness of some of these behavioral treatment techniques (Fog, 1992).

Cognitive techniques are often paired with behavioral methods, and the combination of the two is currently a common approach to treating paraphilias (Laws & O'Donohue, 1997). Cognitive treatments include *cognitive restructuring*, in which paraphilic fantasies and related interpersonal schemas are challenged and revised (Mann & Beech, 2003). In addition, cognitive therapists focus on clients' cognitive deficits in areas such as empathy *(victim empathy training)*, social skills *(social skills training)*, impulse control, and healthy coping strategies (Brockman & Bluglass, 1998; Polaschek, 2003).

Biological Components

Most explanations of paraphilias emphasize psychological factors (Laws & O'Donohue, 1997). However, biological factors can contribute to paraphilias, particularly in the form of injuries or illnesses that have a *disinhibiting* effect on behavior. For example, temporal lobe epilepsy, brain tumors or injuries, and degenerative diseases have all been occasionally implicated in cases of paraphilias (Brockman & Bluglass, 1998). In addition, Lewis and Stanley (2000) found that, among women accused of sexual offenses, mental retardation and a history of current physical abuse and childhood physical and sexual abuse were common.

Biological Interventions

While psychological interventions are currently the primary approach to treating paraphilias, biological treatments also play a role in some cases. In the recent past, surgical castration was sometimes employed to "treat" sexual criminals and treatment-resistant paraphiliacs. This practice dramatically decreased sexually deviant behavior (see Table 10.6), but legal and ethical concerns have almost eliminated its use (Rosler & Witztum, 2000). However, medical interventions designed to suppress testosterone levels (sometimes referred to as **chemical castration**) are still in use. Indeed, many experts

Chemical castration A biological intervention for some paraphilias designed to suppress testosterone levels.

TABLE 10.6 Recidivism Rates Following Castration of Sex Offenders

	RECIDIVISM RATES FOLLOWING CASTRATION			
STUDIES	FOLLOW-UP PERIOD (YEARS)	*N*	PRE-RATE (%)*	POST-RATE (%)*
Langeluddeke (1963)	20	1,036	84	2.3
Cornu (1973)	5	127	76.8	4.1
Bremer (1959)	5–10	216	58	2.9
Sturup[1]	30	900		2.2

* Pre-rate, the recidivism rate prior to castration; post-rate, the recidivism rate after castration.
[1] Mostly rapists. *From Bradford, 1997. Data from Heim & Hursch (1977); Bradford & Pawlak (1987).*

consider anti-androgenic treatments (testosterone is the main androgen, or male hormone), and other hormonal treatments to be the single most effective intervention for pedophilia and other paraphilias (Harvard Mental Health Letter, 2004; Rosler & Witztum, 1998, 2000). Research studies have shown that these interventions do reduce sexual arousal, paraphilic behaviors, and criminal sexual recidivism as a result of reducing male hormone levels (Briken et al., 2003; Prentky, 1997). However, ethical and practical concerns about these treatments are significant, since the drugs can have serious side effects when taken long-term. In addition, the issue of obtaining valid consent for these treatments is quite problematic when dealing with criminally liable or incarcerated individuals (Brockman & Bluglass, 1996; Glaser, 2003). Antidepressant medications (especially SSRIs), which have fewer serious side effects, have recently been tested as a supplemental treatment for paraphilias, but current evidence suggests that they are helpful only in some cases (Rosler & Witztum, 2000).

BRIEF SUMMARY

- Psychodynamic explanations of paraphilias originally focused on fixations in sexual development and currently focus on defense mechanisms related to humiliating sexual traumas from childhood.
- Cognitive-behavioral explanations of paraphilias emphasize classically conditioned sexual arousal to deviant stimuli, reinforcement of aberrant sexual behavior, and social learning of abnormal sexuality.
- Biological factors are generally not a central focus in explaining paraphilias, but some disinhibiting diseases or injuries, and mental retardation, can contribute to paraphilic behavior.
- Treatment of the paraphilias is difficult, partly because clients often come for treatment because of external (for example, legal) pressures rather than an internal desire to change. Psychodynamic, cognitive-behavioral, and biological interventions can all be employed as treatment strategies.

GENDER IDENTITY DISORDER

Gender identity disorder (GID or transsexualism) A DSM-IV-TR disorder involving intense discomfort with one's biological sex and the desire to change sexes.

Gender A person's psychological sense of being male or female.

Gender identity disorder (GID) (sometimes referred to in adults as **transsexualism**) is listed as a sexual disorder in the DSM-IV-TR, although GID does not focus on sexual symptoms per se. Rather, GID involves a disruption in *gender identity*, which is, of course, closely related to sexuality. Gender identity disorder is most clearly defined in terms of two variables: *sex*, which refers to a person's *biological* body (either male or female), and **gender**, which refers to a person's *psychological* sense of being male or female (Zucker & Bradley, 1995). GID consists of three symptoms. First, a person's psychological gender identity is the opposite of his or her biological sex. Second, the person is extremely uncomfortable with his or her biological sex (APA, 2000). Third, the person experiences significant distress or impairment in functioning. Thus, GID involves either men (or boys) who dislike being male and want to be female, or women (or girls) who dislike being female and wish to be male (see Table 10.7).

It is important to emphasize that simple gender nonconformity, such as a girl behaving as a "tomboy" or effeminacy in a boy, does not constitute GID. Nor is GID diagnosed when a person may have cross-gender identifications that are related to some of the *intersex* physical conditions in which children are born with ambiguous genitalia (APA, 2000). Rather, GID is diagnosed only when a person's gender and sex are fundamentally at odds, and the person experiences distress and impairment as a result. In typical cases, people with GID are tormented by feelings of having been born into the wrong body (such

TABLE 10.7 Diagnostic Criteria for Gender Identity Disorder

- A strong and persistent cross-gender identification.
- A persistent discomfort with one's sex or sense of inappropriateness in the gender role of that sex.
- Significant distress or impairment of functioning related to the condition.

Adapted from DSM-IV-TR (APA, 2000)

as "I feel like a woman trapped in a man's body"). Gender identity disorder is very rare, but over the past decade it has become much more widely publicized. Not long ago, only a few celebrated cases of GID were well known, such as the case of Renee Richards, a biologically male eye doctor and tennis player who wanted to join the women's professional tennis tour after undergoing a sex change (Masters, Johnson, & Kolodny, 1986). More recently, as a result of the efforts of the transgender community to raise awareness of the condition combined with the propensity of the media to sensationalize cases of GID, the disorder has been more broadly recognized. While GID may now be more visible and socially accepted, there is no indication that the disorder is becoming more prevalent. GID remains quite unusual, probably affecting less than 1 in 10,000 people, although no sound data on the prevalence of GID yet exist.

Adults with GID usually try to live as members of the opposite sex. Because they cross-dress, individuals with GID are often confused with transvestites (see Box 10.3 for an example of this confusion). However, there is an important difference between the two conditions: transvestites (a form of fetishism) cross-dress because it is sexually arousing; people with GID cross-dress to feel in harmony with their gender identity.

Many clients with GID seek hormonal, surgical, and other forms of treatment to transform their bodies to conform to their gender identity. Often they are able to "pass" effectively as members of the opposite sex and can interact with others who never suspect the condition. Nonetheless, GID does seem to take a psychological toll.

Gender nonconformity Gender nonconformity, such as a "tomboy"-ish girl, is very common and not the same as a gender identity disorder.
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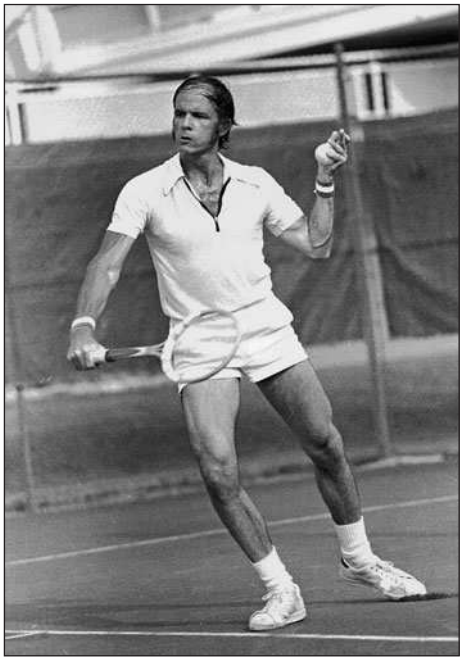


Transsexualism
Dr. Richard Raskin is shown in 1974 before his sex-change operation. By 1977, Dr. Raskin, known postsurgically as Renee Richards, caused a brief controversey when she tried to join the women's professional tennis tour.
(left) © AP/Wide World Photos
(right) Getty Images News and Sport Services

BOX 10.3 The Struggles of a Transsexual in an Unusual Profession

"AUTO RACING: DRIVER WITH SEX CHANGE FINDS HER CAREER STALLED"

by Tarik El-Bashir

The following article from *The New York Times* describes some of the special difficulties encountered by the transsexual race car driver Terri O'Connell.

For more than a year, Terri O'Connell has been tireless in her pursuit of a sponsor. She spends hours on the phone daily. She spends even longer preparing and mailing proposals, trying to come up with the money she needs to resume her career as a race car driver.

O'Connell is hardly alone, for there are scores of other drivers —some young and looking for a break, some old and aching for a comeback—out hustling their talents and tales. Every sell is a hard one. No one's pitch, though, is more difficult to make than O'Connell's. The 35-year-old driver, after all, used to be a man.

"It's tough to find sponsors if you're normal," O'Connell said. It has been near hopeless, she said, given her life story—the saga of a promising young driver who prospered in the hard-living, macho world of race car driving, only to abandon the sport in order to end the torment of an identity crisis that ultimately resulted in a sex change.

While her story has elicited curiosity among the sponsors whose finances determine what cars run on the professional circuits, no one has agreed to back O'Connell with the $250,000 or so she needs to put together an Indy Racing League team. They all have declined politely, but repeatedly. No one has said O'Connell's sex change was the deciding factor, but she has her suspicions.

"I'm controversial because of a biological problem," said O'Connell, who, after having won dozens of sprint car races as well as having run in a Winston Cup race as a young driver, has not turned a lap in a race car since her sex change operation in 1992. "It's been incredibly difficult because of the stereotypes. People don't understand my situation. They think that I'm a freak."

And so, day after day, O'Connell works the phones and knocks on doors. Last week, one door opened slightly. Volkswagen and Candies, a women's shoe company, agreed to let O'Connell drive a Beetle from coast to coast next month in the Cannonball Run, a race for charity. It is a start, but it is not mainstream racing.

"It's going to be tough for her," said Brittan Schnell, a Winston Cup team owner who knows O'Connell. "Terri's got a long road ahead to earn the respect of people in the sport."

High-stakes professional car racing can often be a closed, conservative world, one dominated by men. Nearly two decades ago, Janet Guthrie, the first woman to race in the Indianapolis 500, endured years of hardship in the world of stock car and Indy car racing, forced to drive inferior cars when she could get the financing to drive at all. Only two women are now competing in North America's three major racing leagues, the Indy Racing League, Championship Auto Racing Teams, and Nascar.

Still, many of the principals in the world of racing deny that there is any bar to women—or women who used to be men. Some team owners, including Junie Donlavey, for whom O'Connell once raced years ago, think that her trouble in finding a sponsor comes more from her long layoff than from her sex change.

It has been eight years since she drove Donlavey's car in her only Winston Cup race, in Rockingham, N.C. Then known as J. T. Hayes, she was the teammate of Ernie Irvan.

"I don't see sex as a factor," said Donlavey, who is now the owner of Dick Trickle's Winston Cup car. "We had Janet Guthrie down here years ago, and everybody treated her with respect. Lyn St. James, who drives in Indy, has really been an asset to her sport. I think it's just tough to get a sponsor, period."

But Shand Tillman, the promoter for the Riverside Speedway in West Memphis, Ark., believes there is more to it than that. Tillman said that when O'Connell was regularly competing at tracks like Riverside, "she was as good a sprint car driver as they come." Now, Tillman said, "People are scared to put their name on a car she is driving because of what effects it might have on their product."

Terri O'Connell, formerly J. T. Hayes, at the wheel.
©George Tiedemann

continues

continued

"I don't agree with what she has done at all," Tillman added. "I don't know where in the Bible it says it, but if you are made a man, you should stay a man."

Growing up in Corinth, Miss., J. T. Hayes appeared to be a prototypical race car driver, a Southern boy with a lead foot. With his father, he spent weekends competing at Southern tracks like Riverside and Devil's Bowl in Dallas. He developed into an accomplished driver, reaching the podium more than 300 times in Go-Kart, midget, and sprint car races.

But O'Connell felt trapped, her very identity wrong. She tried hard to pretend otherwise. Fearing rejection from the father she loved, O'Connell kept up a very male persona. She dated girls in high school and even married briefly. It was always a struggle.

"Being feminine was like eating for me," O'Connell said. "Imagine what it's like for you not to eat, and you'll understand the nightmare I was living."

That nightmare reached its unsettling nadir when O'Connell smashed into a wall during a race at Houston's Astrodome. Her first thoughts, she said, were not about her broken bones, but about what the medics would say when they discovered she was wearing women's underwear and pink toenail polish.

Depressed and confused, O'Connell, good enough to have raced in Nascar's top circuit, walked away from racing in 1990. Two years later, she underwent the sex change.

"I had to do it," O'Connell said. "I was at the point where I could let racing go. I had to get my life straight."

But once a woman, the desire to drive endured, and it has brought her back to the fringes of the sport. Nothing has come easy since she has been back. But against the resistance, O'Connell, who has been working as a fashion model, keeps pushing. She lives in Charlotte, not far from Charlotte Motor Speedway.

"As it turned out," O'Connell said, "motorsports were my blessing and my curse."

The New York Times, May 17, 1998.

Many individuals with GID are reported to have significant relationship problems and generally impaired functioning. These difficulties are not surprising, given that individuals with GID face discrimination and ostracism in addition to struggling with emotional problems related to their condition (the struggles of one transsexual are described in Box 10.3).

Adult GID seems to be two to three times more common in biological men than in women (APA, 2000). This skewed ratio may be due to the fact that in our society men are more stigmatized for having effeminate traits than women are for having masculine traits; for example, the label "sissy" is much more negative than "tomboy." As a result, males with cross-gender identifications may have a harder time emotionally than cross-gender identified females. Interestingly, while virtually all women with GID are sexually attracted to women, sexual orientation varies much more in GID men. Males who experienced a childhood onset of GID are most likely to be sexually attracted to men, while those with later onset may be attracted to women or consider themselves bisexual. Sexual orientation in transsexuals is defined in terms of the person's original biological sex, so that a female-to-male transsexual who is attracted to women is classified as homosexual, even though her sexual fantasies are most likely heterosexual (herself as a man having sex with a woman). A small percentage of transsexuals report little sexual interest in either sex.

GID occurs much more often in children than in adults, because most children with GID "outgrow" the problem by adolescence. For example, 75% of boys diagnosed with GID as children no longer have the disorder by late adolescence (APA, 2000). However, most of these boys have developed a homosexual or bisexual orientation by this time. In general, GID in childhood is strongly associated with later homosexuality, which has led to some controversy about treating GID in childhood. Critics have called such treatment "antihomosexual" and unnecessary (Pleak, 1999). Other experts contend that it is legitimate and important to treat childhood GID since the symptoms of the disorder cause considerable suffering (Zucker & Bradley, 1995). (See the sections Explaining Gender Identity Disorders and Treating Gender Identity Disorders for more details.)

Boys with GID typically show stereotypically feminine interests, avoid "rough and tumble" play, and express the wish to be a girl. Girls with GID usually resist feminine activities and clothes, prefer to play with boys, and often insist that they are or will

TABLE 10.8 Gender Identity Interview for Children (Version for Boys)

The following interview format can be helpful in assessing childhood GID.

1. Are you a boy or a girl? BOY _____ GIRL_____
2. Are you a (opposite of first response)?_____
3. When you grow up, will you be a Mommy or a Daddy? MOMMY _____ DADDY_____
4. Could you ever grow up to be a (opposite of first response)? YES _____ NO_____
5. Are there any good things about being a boy? YES _____ NO_____ If YES, say: Tell me some of the good things about being a boy. (Probe for a maximum of three responses.)
   If YES or NO, ask: Are there any things that you don't like about being a boy? YES _____ NO_____
   If child answers YES, say: Tell me some of the things that you don't like about being a boy. (Probe for a maximum of three responses.)
6. Do you think it is better to be a boy or a girl? YES _____ NO _____ Why? (Probe for a maximum of three responses.)
7. In your mind, do you ever think that you would like to be a girl? YES _____ NO _____ If YES, ask: Can you tell me why? (Probe for a maximum of three responses.)
8. In your mind, do you ever get mixed up and you're not really sure if you are a boy or a girl?
   YES _____ NO_____
   If YES, say: Tell me more about that. (Probe until satisfied.)
9. Do you ever feel more like a girl than like a boy? YES _____ NO_____
   If YES, say: Tell me more about that. (Probe until satisfied.)
10. You know what dreams are, right? Well, when you dream at night, are you ever in the dream?
    YES _____ NO_____
    If YES, ask: In your dreams, are you a boy, a girl, or sometimes a boy and sometimes a girl?
    BOY _____ GIRL _____ BOTH _____ NOT IN DREAMS_____
    (Probe regarding content of dreams.)
11. Do you ever think that you really are a girl? YES _____ NO_____
    If YES, say: Tell me more about that. (Probe until satisfied.)

From Zucker et al., 1993

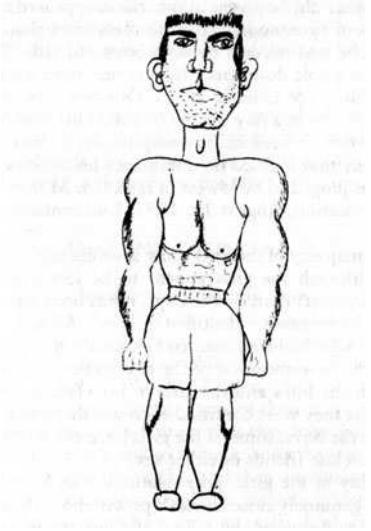
become male (for example, "I'm going to grow a penis" or "my testicles are hidden"). (Table 10.8 presents an interview protocol that can be helpful in assessing childhood GID; Figure 10.3 shows drawings by children with GID.) Both boys and girls with the condition may experience serious peer relationship problems, including isolation and teasing, and are considered at risk for depression and suicide. Adolescence is often particularly traumatic for these children, as their bodies develop into the adult form of the sex that feels foreign to them.

In order to provide a descriptive picture of GID in children, we include the following case report of GID in a 6-year-old girl.

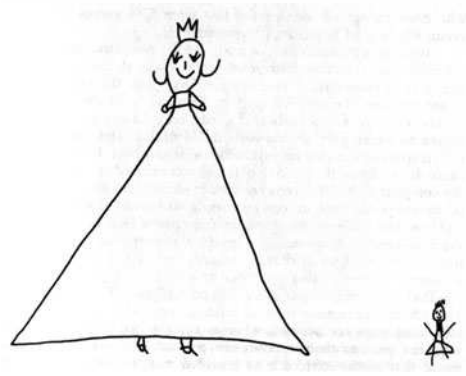
CASE ILLUSTRATION Toni, a 6-year-old girl with an IQ of 123. . .was referred because of increasing parental concern over her gender identity development. . . At times she displayed exaggerated masculine motoric movements and would lower her voice. She was adamantly opposed to wearing stereotypically feminine clothes and dressed almost exclusively in pants. Her only concession was wearing a dress to church. She stated that she dressed "like a gentleman" during the week but for church she dressed "like a lady."

Toni was quite outspoken in her desire to be a boy. At school, she began to call herself a boy, and to spell her name as "Tony," which greatly alarmed her teacher . Toni had heard from neighborhood boys about "sex change" and subsequently asked her parents more about this. Toni's mother, perhaps because of her "liberal" or "per-

Drawing by a 10-year-old boy with gender identity disorder during an individual therapy session. At the time, the boy was talking about the unpredictability of his mother's moods.



Drawing of a man by an 11-year-old girl with gender identity disorder who wanted to be a weightlifter so that she could be strong enough to protect her mother from potential rapists.



Drawing of a girl (left) and a boy (right) by an 8-year-old boy with gender identity disorder. Note the marked difference in height. The youngster remarked that the boy was drawn with a "dress on" because he "didn't know how" to wear pants.

Drawing of a boy by a girl with gender identity disorder. Note the presence of the third leg.

Figure 10.3 Drawings by children with gender identity disorder Zucker and Bradley (1995) compiled these annotated drawings of children with gender identity disorder.

From Zucker & S. Bradley, *Gender Identity Disorder and Psychosexual Problems in Children and Adolescents*, Guilford Press, New York, 1995.

missive" child-rearing style, explained the mechanics of sex-reassignment surgery to her; after that, she became, in her parents' words, "obsessed" with the idea.

Toni was persistent in claiming that she had male genitalia "hidden inside". . . If hit in the stomach with a hockey puck, she would clutch herself and exclaim, "Oh, my balls!" Information from psychological testing indicated that Toni knew that she was a girl but was struggling with intense desires that this not be so. For example, she stated that she knew she didn't really have a penis and testes hidden inside her, but that she said so "just to be like a boy." At a later point, she tried to explain her feelings thus: "I am a girl but I'm not."

Quoted in Minter, 1999, from Zucker, 1990.

Explaining Gender Identity Disorder

The development of gender identity in general, and GID in particular, are complex processes that are not fully understood. We do know that for most children a relatively stable and unchangeable gender identity as either male or female is well established by the age of 3 or 4 (Bradley & Zucker, 1997). While the factors responsible for producing gender identity are hotly debated, most experts agree that a combination of biological, psychological, and social factors are involved. We turn now to a summary of some of the current explanations of GID. At the end of this summary, we describe an integrated explanatory model, in keeping with the core concept of ***multiple causality***.

Biological Components

Temperament Inborn behavioral tendencies.

There is a small but growing body of literature on the possible role of biological factors in the development of GID. One area of research involves connections between **temperament**—inborn behavioral tendencies—and GID. For example, boys with GID seem to have generally lower activity levels, and less interest in rough-and-tumble play, than other boys. These temperamental differences probably have some genetic basis (Zucker & Bradley, 1995; Zucker, 2005).

The mechanism of these genetic temperamental differences probably involves the hormonal system, which influences many sexual and gender-linked behaviors. For example, chromosomal females with a rare genetic condition known as *congenital virilizing adrenal hyperplasia* (CVAH or CAH) receive excess androgen, the male sex hormone, in utero. As a result, these girls not only develop some masculine physical characteristics, but they have more masculine personality traits as well (Money, 1994). (Figure 10.4 shows the masculine play preferences of CVAH girls.) Similarly, chromosomal males with the rare genetic condition called *androgen insensitivity syndrome* are unable to process androgen *in utero*. They are born looking female, raised as girls, and generally found to be psychologically hyperfeminine in later life (Money, 1994). While these conditions are not the same as GID, they do demonstrate the influence of hormones on gender identity as well as on sexual anatomy. Accordingly, some experts suspect that prenatal, postnatal, or even postpubertal hormonal abnormalities could contribute to the gender anomalies seen in GID, although no consistent evidence for this has yet been reported. There is, however, some preliminary evidence of differences in brain structure in transsexual men as compared to control subjects. Zhou and colleagues (1997) found that an area of the hypothalamus in six transsexual males was half the normal size of that in nontranssexual men, making it close to its typical size in women.

Psychodynamic Components

Psychodynamic theories of GID have emphasized the role of disturbed mother-son relationships in the development of GID in boys. However, there has been some disagreement

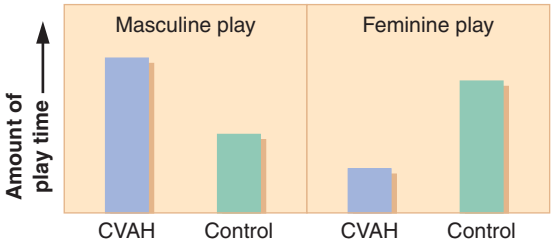


Figure 10.4 Differences in Masculine versus Feminine Play in Girls with Congenital Virilizing Adrenal Hyperplasia (CVAH) versus Controls The graph shows that the girls with CVAH spent more time in "masculine" play and less in "feminine" play with gender-typed toys, compared to control girls.

Adapted from Zucker & Bradley, 1995, based on Berenbaum & Hines, 1992, p. 205

among psychodynamic theorists as to the nature of the mother-son problem (Zucker & Bradley, 1995). Stoller (1979) and Greenson (1968) believed that an overly close and gratifying mother-son relationship (what they described as a "blissful symbiosis"), combined with a too-distant father, were the key factors in producing a female identification in a boy. However, Coates and her colleagues (Coates, 1992; Coates, Freidman, & Wolfe, 1991; Coates & Wolf, 1995) found in their empirical studies of GID that the GID boy's feminine behaviors and interests were often an attempt to connect with a depressed, withdrawn mother rather than a symbiosis with an overly gratifying mother.

Behavioral Components

From a behavioral standpoint, gender behavior, like all behavior, is shaped by the environment. Accordingly, behavioral theorists see the primary cause of GID as a set of reinforcements in the child's environment, which lead the child to learn that cross-gender behavior will be rewarded and gender-consistent behavior will be punished (Rekers & Varni, 1977). Cross-gender behavior and identity, in other words, could be formed through operant conditioning. This perspective overlaps with some psychodynamic theories about the influence of parents' conscious and unconscious wishes in shaping their child's gender identity and behavior. Evidence for these hypotheses is mixed. Parental preference for an opposite-sex child does not seem to be associated with GID, but some evidence suggests that social reinforcement of cross-gender behavior can contribute to the disorder (Zucker & Bradley, 1995; Zucker, 2005).

Sociocultural and Family Systems Components

In addition to the evidence that social reinforcement of cross-gender behavior outside the family can contribute to GID, several family variables have been associated with the disorder. Demographically, GID boys tend to have a large number of brothers and to be among the younger siblings in their families (Bradley & Zucker, 1997). In addition, the families of children with GID tend to have significant family-wide psychopathology, a great deal of family stress and frustration, and difficulty with effective limit setting (Zucker & Bradley, 1995; Zucker, 2005).

The Principle of Multiple Causality in Gender Identity Disorder

Multiple causality

Coates and her colleagues offer an integrated *biopsychodevelopmental* explanation of the multiple factors that contribute to GID—an approach that reflects the core concept of ***multiple causality*** (Coates, 2007, 1992; Coates et al., 1991; Coates & Wolfe, 1995). For GID in boys, such factors include a relatively passive temperament; high levels of anxiety and insecurity among immediate family members; the boy's acute sensitivity to parents' emotions; mothers who are uncomfortable with male aggressiveness; fathers who feel inadequate and defer to their wives; a depressive withdrawal of the mother leading to separation anxiety for the boy; parental emotional problems leading to insecure attachments with their children; inadequate family limit setting; and parental tolerance or reinforcement of cross-gender behavior when it begins to emerge during the critical early childhood period of gender identity development. In this context, the GID boy may begin to identify as female, either because he wants to regain his connection with his mother by becoming like her (Coates et al., 1991; Hansell, 1998) or because it feels emotionally safer to be female than male. For girls with GID, different family factors are involved. In these families, fathers are often abusive and appear to devalue femininity. Mothers tend to feel inadequate and to adopt a victim role within the family. This combination of factors may lead a girl to feel that it is far preferable to be male than female.

Treating Gender Identity Disorder

The treatment of GID has been an area of great controversy. Part of the controversy has to do with the fact that the basic treatment approach for GID fundamentally differs depending on whether the client is a child or an adult, mainly because gender identity appears to be somewhat changeable during childhood but virtually unchangeable in adults. Accordingly, treatment for children involves trying to readjust their gender identity to fit their biological sex, while treatment of adults involves **sex change**, or **sex reassignment**, to make biological sex conform to gender identity. However, both approaches have been challenged in terms of effectiveness and ethics (Minter, 1999; Zucker & Bradley, 1995; Zucker, 2005). We now turn to a description of some of the treatments for GID, including some discussion of the efficacy and ethical issues.

Sex change (sex reassignment) A treatment for gender identity disorder in which the client's body is altered through various means to conform with his or her gender identity.

Treatment of Childhood Gender Identity Disorder

Because gender identity is still somewhat fluid during childhood, most experts on GID believe that children with the disorder can and should be helped to become more comfortable with their biological sex through psychotherapy. A number of treatment approaches have been developed; all have had mixed results (Zucker & Bradley, 1995). Beginning in the 1970s, George Rekers and his colleagues reported success in extinguishing feminine behaviors and developing masculine behaviors in GID boys using rewards and punishments in a behavioral conditioning paradigm (Rekers et al., 1977; Rekers & Lovaas, 1974). However, the long-term success and generalizability of these results have since been questioned. In addition, some critics have argued that these behavioral treatment methods are coercive and cruel (Minter, 1999; Pleak, 1999).

Psychodynamic interventions for children with GID were pioneered by Robert Stoller. With colleagues (Green, Newman, & Stoller, 1972), he developed an integrated therapy for GID in boys based on four principles: (1) developing a trusting relationship with the child; (2) increasing the parents' concern about cross-gender behavior; (3) increasing the father's involvement with his son; and (4) improving the marital relationship.

While reliable statistics on treatment efficacy with GID are lacking, there is reason to be optimistic that most children can be helped. Most therapists believe that it is optimal for the therapist to be of the same sex as the child in order to provide a role model, but there is no systematic evidence that opposite gender therapists are less effective (Zucker & Bradley, 1995). Finally, some clinicians have experimented with group therapy for GID children and provided anecdotal reports of success, but there are as yet no quantitative data on this form of therapy with GID. As mentioned earlier, some critics believe that treatment of children with GID is unethical. They argue that since most GID children grow up to be homosexual, but not transsexual, treatment of childhood GID has simply become a new locus for the old psychiatric tendency to pathologize and "treat" homosexuality (Minter, 1999; Pleak, 1999). The counterargument is that children with GID experience distress and impairment in the form of depression, isolation, stigmatization, and a range of other problems. Furthermore, many experts believe that GID is usually part of a broader set of psychological problems requiring treatment (Coates, 2007; 1992; Coates & Wolfe, 1995), although evidence for this is mixed. In any case, the current mainstream opinion seems to be that the respectful treatment of childhood GID is appropriate and helpful in most cases (Zucker & Bradley, 1995; Zucker, 2005).

Treatment of Adult Gender Identity Disorder

As clinicians began to realize the futility of attempting to change the gender identity of adult transsexuals through psychotherapy, *sex change* or *sex reassignment* developed as an alternative treatment approach. Essentially, the goal of sex reassignment is to facilitate the client's wish to live as a member of the opposite sex, thereby eliminating the symptoms of GID. The complete sex-change process is long, complex, expensive, and stressful, and not possible or appropriate for all transsexuals. It usually begins with a trial period during which the client undergoes a psychological evaluation while experimenting with living as a member of the opposite sex. During this period, the individual may begin hormone treatments, which shift secondary sex characteristics toward those of the opposite sex. Concurrently, clients can receive physical therapy, voice training, psychotherapy, and other adjunctive services to assist them in their complex transition (Cohen-Kettenis & Gooren, 1999). If the client still wishes to proceed to the final and irreversible stage of sex-change surgery, and if he or she has "passed" the psychological and physical screening criteria, specialized medical centers offer sex-change procedures (for discussion of the issue of medical insurance coverage for sex-change surgery, see Box 10.4).

BOX 10.4 Insurance Coverage for Sex-Change Surgery?

SAN FRANCISCO SAYS YES

This report from *The New York Times* describes the decision by the city of San Francisco to include coverage for sex-change treatment under its health insurance policies.

The city of San Francisco is planning to extend its health insurance to cover sex-change operations for municipal employees. The Board of Supervisors and Mayor Willie Brown are expected to sign the measure within the next couple of weeks. It will extend up to $50,000 in benefits to city workers who want to switch their gender.

San Francisco may become the only governmental body in the nation to make sex-change benefits available. The state of Minnesota offered such benefits, but the program was phased out in 1998. The issue was discussed in Oregon, but a commission decided against it in 1999.

"I'm very pleased that we're doing it," Tom Ammiano, president of the Board of Supervisors, said today. "We have a noticeable transgender population in San Francisco, and many are city employees."

The benefits would be available starting July 1.

The benefit would cover male-to-female surgery, which costs about $37,000, as well as female-to-male surgery, which runs about $77,000. It also would cover hormone therapy and other procedures.

Cecilia Chung, a city employee who has had medical problems since sex-change surgery in Thailand two years ago, said she wanted to be first in line to take advantage of the new insurance. "I've been trying to get the problem corrected, but it's not covered by my regular health insurance," said Ms. Chung, 35, who works for the Department of Public Health.

Transgender advocates said the measure's symbolism was more valuable than the benefits.

"I think it's really politically important to do that," said Susan Stryker, the executive director of the Gay, Lesbian, Bisexual, Transgender Historical Society of Northern California. "Transgender rights are often considered as a joke: 'What are those wacky San Franciscans going to do next?'"

Ms. Stryker, who had male-to-female surgery 10 years ago, said there were about 15,000 transgendered people in San Francisco.

The term transgender covers a number of categories including crossdressers, transvestites, transsexuals and those born with characteristics of both sexes. Employees would have to work for the city at least one-year before they would be eligible.

"Sex-change Coverage to San Francisco workers," *The New York Times*, February 18, 2001.

During the 1960s and 1970s, sex-change surgery was enthusiastically embraced by many experts in the field, and it was widely available. Since then, professional enthusiasm has been more tempered. On the one hand, sex-change surgical techniques have improved for both male-to-female and female-to-male procedures. While the latter is more complex—for example, *phalloplasty* techniques (creating an artificial penis) are not yet perfected—there are many reports of satisfactory sexual functioning, including orgasmic capacity, in postsurgical transsexuals (e.g., Lief & Hubschman, 1993). On the other hand, reports on the long-term psychological effects of sex-change surgery have been mixed (Wolfradt & Neumann, 2001). The ethics of sex-change surgery have also been hotly debated. Some experts see sex-change surgery as a humane solution to a vexing psychological problem that cannot be effectively treated in any other way. Others view it as a barbaric practice similar to discredited psychiatric "treatments" of the past such as the prefrontal lobotomy. While the technical success of the surgery continues to improve, it may be many years before the efficacy and ethical issues concerning sex-change procedures are resolved. Who knows how our current understanding and treatment of GID will sound to the experts in the next century?

BRIEF SUMMARY

- Gender identity disorder (GID) is a rare condition involving the wish to be the opposite sex and a dislike of one's own sex. It usually begins in childhood, but most children with GID become homosexual adults rather than adults with GID.
- Various psychological, social, and biological theories have been proposed to explain GID, but the causes are still not fully understood.
- Treatment of GID is controversial for practical and ethical reasons. Children with GID usually receive psychotherapy to stabilize a gender identity consistent with their biological sex. Adults, whose gender identities are less malleable, may pursue a sex change, a complex process of altering the body to conform to one's gender identity. The long-term effectiveness and the ethics of these forms of treatment remain open questions.

CASE Vignettes

Treatment

Laurie • Sexual Dysfunction

Laurie (the 29-year-old, married cosmetician described at the beginning of the chapter) consulted a sex therapist recommended by her gynecologist after deciding, with her husband, that she wanted to try to do something about her limited enjoyment of sex. The therapist met with Laurie and her husband for two evaluation sessions. She suggested that Laurie's sexual problems could best be addressed by a combination of a focal behavioral sex therapy to address her sexual dysfunction and a more exploratory psychodynamic intervention to deal with related emotional conflicts about sex. In six sessions with the sex therapist, Laurie was taught sensate focus, relaxation, directed masturbation, and sexual communication techniques. After practicing these techniques, Laurie was more easily able to have orgasms while masturbating, but she still felt inhibited about masturbating and about having sex with her husband. In her concurrent exploratory psychotherapy sessions with a colleague of the sex therapist, Laurie discovered that her inhibitions were related to her need to feel constantly "in control." She equated sexual arousal and orgasm with "losing control," which felt frightening to her. As Laurie explored this with the therapist, she discovered that her preoccupation with control stemmed from her unresolved anger toward her "out-of-control" mother and her childhood fear of her. As Laurie worked out her feelings about her mother, she was able to become a more relaxed, less "driven" person. She began to recognize that she didn't have to feel embarrassed, weak, or scared about feeling emotional or sexually excited. Laurie was able to combine these insights from her exploratory work with the greater sexual responsiveness she had developed from her sessions with the sex therapist. Her husband was very encouraged by these changes, and their sex life improved significantly.

CASE DISCUSSION • Sexual Disfunction

As it turned out, Laurie's sexual difficulties had a psychological basis. Focal sex therapy was helpful, but did not address the emotional conflicts underlying her sexual inhibitions. Psychodynamic interventions helped Laurie to recognize these conflicts, which in turn allowed her to make better use of the new skills learned in the sex therapy.

Rick • Exhibitionism

Rick (the 28-year-old computer programmer with exhibitionism) was prosecuted following his arrest for indecent exposure. In return for a guilty plea, he was placed on probation and ordered to participate in a state-sponsored group treatment program for sex offenders. Rick was able to keep his family from finding out about his arrest. Once he realized that his "secret" was still safe, Rick's interest in treatment diminished. He had tearfully assured the judge that he desperately wanted to get help for his problem, but after his sentencing he told himself that as soon as he could get his probation officer off of his back by completing the 20-week group therapy he would return, more carefully, to his exhibitionism.

Rick's attitude changed during his first group therapy session. To his surprise, the "experienced" members of the group, all of whom had committed a variety of sex offenses, immediately picked up on Rick's denial of his problem and confronted him. They told him of their own stories of sexual misconduct, denial, repeated arrests, and public humiliation. Rick was horrified to think that he might end up like some of the men in the group—disowned by their families, fired from their jobs, and living marginal lives. In addition, as the men in the group talked about the connections between their personal histories and their sexual misconduct, Rick began to realize that he, too, had some "skeletons in the closet." Rick had been sexually molested by two 14-year-old neighborhood boys when he was 9. Rick had never told anyone about it and had rarely thought of the experience since. However, when Rick was 14, he had tried to force his younger brother to suck his penis. The brother told their parents; Rick was beaten with a belt by his father, told not to tell anyone else about it, and the incident was never again mentioned in the family. Now, as he heard others tell their stories, Rick realized that he was still affected by these experiences. He knew they were somehow related to his exhibitionism, but he did not understand exactly how.

When the 20-session group treatment came to an end, Rick decided to pursue individual therapy to continue to gain insight into his problems. Rick ended up working with his therapist on a long-term basis. During the early part of the therapy, he still struggled repeatedly with an irresistible urge to expose himself to women. With his therapist's help, he discovered that the impulse to "act out" was always stimulated by an experience in which he felt humiliated or emasculated. Exposing himself had become a way to reassure himself that he "had the guts" to be successful as a man. Rick discovered that his vulnerability to feeling very easily humiliated did indeed stem from his childhood experience of abuse, and his family's shame and silence about it. By gradually learning to understand these urges, Rick was eventually able to keep himself from acting on them though he still felt a strong desire to do so.

CASE DISCUSSION • Exhibitionism

Rick was not highly motivated to change initially. Like many individuals with paraphilias, he wanted to avoid the negative consequences of his behavior while continuing to pursue it. However, the group treatment was effective in confronting Rick's denial of the seriousness of his problem and increasing his motivation to change. Further individual therapy allowed Rick to address the earlier sexual traumas that contributed to his exhibitionism, leading to a more favorable outcome than is the case for most men with exhibitionism.

Phil • Gender Identity Disorder

Phil (the 35-year-old anthropology professor) consulted with a psychologist who was experienced in working with GID and affiliated with a sexual disorders clinic. The psychologist explained to Phil what the sex-change process would entail, and encouraged him to read more about it and to talk to others who had undergone a sex change. As he did so, Phil became even more convinced that he wanted to proceed with a sex change. He felt that he could only be happy living as the woman he felt he was, sharing "girl talk" with close female friends, and having a male sexual partner. Phil applied to the sex-change treatment program. The program began with a psychological evaluation, counseling, and support for the first stage of the process—successfully living

as a woman for a year. The psychological evaluation indicated that Phil was emotionally stable and realistically motivated to pursue a sex change.

Phil found this first year "liberating." It began with telling his friends, family, and colleagues about his decision, and most were quite accepting. Phil began female hormone treatment; with daily estrogen doses, he developed breasts, his muscles and skin softened, and he reported that he "felt womanly." Phil met with a team of speech and physical therapists who helped him to learn to talk and move like the woman he was becoming. Electrolysis allowed him to remove his unwanted facial and body hair. By now, Phil easily passed as a woman, yet he felt his change was not complete as long as he had a penis instead of a vagina. He wanted to feel like "a complete, genuine woman able to have a full relationship with a man." Since everything had proceeded well up to this point, Phil was scheduled for sex-change surgery. The surgeon removed Phil's penis and testicles, and fashioned a vaginal pouch using tissue from the male genitals in order to preserve some sexual sensitivity. The surgery was a physical and emotional success. Phil (now Phyllis) finally felt that she had become the woman she was meant to be. Five years later, she was living happily as a woman in a committed relationship with a man, and coping reasonably well with the occasional hostility and discrimination faced by most transsexuals.

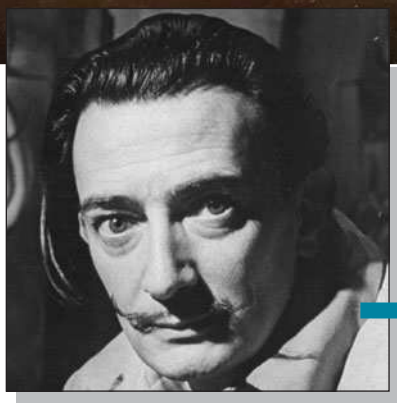
CASE DISCUSSION • Gender Identity Disorder

Phil was convinced that he could be happy only by transforming himself completely into a woman. Fortunately, he had the emotional and financial resources to successfully pursue and achieve this goal. Phil's GID was treated with a complete sex-change process. His positive result was one of the best outcomes achieved for GID by this particular sexual disorders clinic.

Chapter Summary

- ***Cultural and historical relativism*** regarding sexual norms, the ***continuum between normal and abnormal*** sexual behavior, and the ***importance of context*** in sexual behavior all complicate the tasks of defining and classifying abnormal sexuality.
- Currently, the DSM-IV-TR identifies three types of sexual disorders based on symptoms related to disturbances in sexual behavior or gender identity: sexual dysfunctions, paraphilias, and gender identity disorder (GID).
- Sexual dysfunctions are recurrent, distressing, and/or impairing problems in the desire, arousal, or orgasm phases of sexual response. Desire phase dysfunctions include hypoactive sexual desire and sexual aversion. Arousal phase dysfunctions include female arousal disorder and male erectile disorder. Orgasm phase dysfunctions include female and male orgasmic disorders and premature ejaculation. Two sexual pain disorders, vaginismus and dyspareunia, are also listed as sexual dysfunctions. The sexual dysfunctions have a wide variety of psychological and biological causes, and are usually responsive to treatment.
- Paraphilias are recurrent, intense, abnormal sexual preferences that cause distress or impairment. They include: exhibitionism, voyeurism, fetishism, sexual sadism, sexual masochism, pedophilia, and frotteurism. Paraphilias illustrate the ***principle of multiple causality*** and the ***connection between mind and body*** in that psychodynamic, behavioral, cognitive, and biological components are involved in their etiology and treatment. Paraphilias are generally considered difficult to change in treatment.
- GID is a severe disturbance in gender identity involving the wish to be the opposite sex and extreme discomfort with one's own sex. The causes of GID are not well understood, although several biological and psychological models have been offered to explain it. Children with GID are generally treated with psychotherapy in an effort to help them better adapt to their biological sex. However, adults with GID may seek sex reassignment (or sex change) as a treatment for the condition.

Salvador Dali, *The Invisible Afghan Hound*, by Dali, 1938. Oil on wood, 19 x 24.1 cm. Private Collection. Erich Lessing/Art Resource © 2007 Artists Rights Society (ARS), New York



©George Karger/Time Life Pictures/Getty Images News and Sport Services

Spanish born, Salvador Dali (1904–1989) created strikingly bizarre Surrealist paintings rich with symbolic meanings and strangely juxtaposed objects. Despite Dali's reputation as one of the most influential painters in the modern art movement, he was almost as famous for his flamboyant personality and skill at self-publicity as he was for his art. Dali's histrionic behavior included arriving at an event in a limousine filled with cauliflower and wearing a deep-sea diving suit to the opening of the London Surrealist exhibit in 1936.

CHAPTER 11

Personality and the Personality Disorders

CASE Vignettes

Tyler, a 33-year-old mechanic, contacted a psychologist at his girlfriend Sarah's urging. She was concerned about his irrational suspiciousness, jealousy, and hostility. Tyler and Sarah had started dating two years earlier. Even at the beginning of the relationship, Sarah knew that Tyler tended to be very suspicious, often distrusting his friends and feeling that for most of his life other people "had it in for me." Over time, Tyler began to doubt Sarah's fidelity. Despite Sarah's commitment to the relationship, Tyler insisted that she was dating other men. Just last month, Tyler angrily confronted one of Sarah's male friends and accused him of having an affair with Sarah. When Sarah attempted to reason with Tyler and reassure him of her loyalty, he said that she was just trying to "trick me again."

Beth, age 28, sought therapy at her university counseling center when she became distressed at the prospect of the upcoming completion of her Ph.D. Beth told her therapist that she felt extremely worried about how she would spend her time after graduation. Despite her high level of academic achievement, Beth had not been able to decide on what kind of career interested her and thus had not applied for a single job. Beth was tempted by her parents' suggestion that she come home to live with them for as long as she wanted. She spoke fondly of how much her mother and father cared for her, and how they had continued to come by the campus to do her laundry, clean her apartment, and pay her bills throughout college and graduate school. Beth had been living with college friends throughout graduate school. She was hoping that another friend might invite her to move in with her after graduation, but Beth knew that her friends felt a little overburdened by her constant need for support. In fact, she looked to them for advice on everything: what classes to take, what clothes to wear to class, what she should eat for lunch, and which guys she should like.

DEFINING PERSONALITY AND THE PERSONALITY DISORDERS

Tyler and Beth both exhibit extreme *personality traits*—Tyler is overly suspicious and Beth is overly dependent. **Personality traits** are patterns of inner experience and behavior that are relatively stable across time. Unlike *symptoms,* traits do not come and go. For example, you may have a friend who is highly intelligent (trait) and who sometimes gets depressed (symptom). Another friend, who is very assertive (trait), may experience occasional episodes of intense anxiety (symptom). The distinction between traits and symptoms goes back to early psychodynamic theorists who noted that emotional conflicts could be expressed either in symptoms, which the individual

Personality traits Behavioral tendencies that are relatively stable across time and place.

Ego-dystonic Behaviors, thoughts, or feelings that are experienced by an individual as distressing and unwelcome.

Ego-syntonic Behavior, thoughts, or feelings that are experienced by an individual as consistent with their sense of self.

Personality disorders Disorders characterized by extreme and rigid personality traits that cause impairment.

Personality An individual's unique and stable way of experiencing the world that is reflected in a predictable set of reactions to a variety of situations.

experiences as unwanted, uncomfortable, and inconsistent with their sense of self (**ego-dystonic**), or in personality traits, which are consistent with the individual's sense of self (**ego-syntonic**). While the difference between symptoms and traits is not entirely clear-cut (for example, is a "depressive person" manifesting a symptom or a trait?), it is a generally helpful and widely used distinction.

As you recall, the difference between traits and symptoms is the basis of the distinction between Axis I and Axis II in the modern DSM system: symptom disorders are classified on Axis I, and trait-based disorders are classified on Axis II. The primary trait-based disorders are known as the **personality disorders**, and the DSM-IV-TR currently includes 10 different personality disorders. (The only other disorders classified on Axis II of the DSM-IV-TR are various forms of mental retardation.) All other psychological disorders categorized by the DSM-IV-TR are classified on Axis I (see Chapter 3 for more information on multiaxial classification in the DSM).

Before we begin to explore the nature of abnormal personality, it is important to consider some questions about personality in general. Does such a thing as stable personality exist, or are people's thoughts, feelings, and behaviors reactions to the shifting influences of their environments? If there is such a thing as personality, can it be measured? Can personality traits be reliably described and categorized? Most personality researchers agree that individuals *do* have relatively stable personality traits that can be measured and categorized. Experts generally define **personality** as an individual's unique and stable way of experiencing the world that is reflected in a predictable set of reactions to a variety of situations (Costa & McCrae, 1989; Terracciano, Costa, & McCrae, 2006).

In general, the personality disorders are characterized by *rigid, extreme, and maladaptive* personality traits. In other words, people with personality disorders behave in ways that do not fit with accepted social standards, and they are unable to adapt their behaviors to better suit their environments. The DSM-IV-TR provides the following definition of a personality disorder: "an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment" (APA, 2000).

Normal-abnormal continuum

The Continuum Between Normal and Abnormal Personality

Many of the traits associated with personality disorders are exaggerated versions of normal traits. For example, we all feel preoccupied with ourselves and our own self-interest at times, but in the extreme such behavior characterizes one of the personality disorders: *narcissistic personality disorder.* Similarly, most people need emotional support and reassurance from time to time, but people with *dependent personality disorder* have a chronic and excessive need for reassurance and caretaking. Thus, like most other disorders, the personality disorders represent an extreme end of the ***continuum between normal and abnormal behavior***. When trying to determine where to draw the line between normal and abnormal personality, it is crucial to consider how extreme, rigid, and maladaptive an individual's personality traits are. For example, Beth (described in one of the chapter-opening case vignettes) is so dependent on other people that she seems to be unable to care for herself, and she is extremely upset about what she will do when graduate school ends; her dependence on others impairs her functioning. The case of Beth also illustrates the ego-syntonic quality of personality disorders. Beth is not distressed by her dependency—she is only distressed that others will not meet her dependency needs! In some cases, people with personality disorders are aware of and concerned about their extreme traits, but in general they are unlikely to seek treatment and can be difficult to help when they do, as we will discuss later in the chapter (see Box 11.3, Psychotherapy Outcome Studies).

BRIEF SUMMARY

- Unlike symptoms, personality traits are patterns of inner experience and behavior that are relatively stable across time.
- Personality is considered to be disordered when personality traits are maladaptive, rigid, and extreme.
- Most of the traits associated with personality disorders occur on a ***continuum between normal and abnormal behavior***. Personality disorders usually involve extreme versions of common personality traits.

Critical Thinking Question Tyler's suspicious behavior (described in one of the chapter-opening case vignettes) makes sense to him (it's ego-syntonic) but does not make sense to his girlfriend. Why might Tyler be unable to see his behavior as irrational?

CLASSIFYING, EXPLAINING, AND TREATING PERSONALITY DISORDERS

As noted previously, the DSM-IV-TR currently includes 10 personality disorders (see Table 11.1). The 10 DSM-IV-TR personality disorders are grouped into three *clusters* based on some common features:

- *Cluster A* (odd or eccentric) includes *paranoid, schizoid,* and *schizotypal* personality disorders.

TABLE 11.1 The DSM-IV-TR Personality Disorders

Paranoid personality disorder ■ A pattern of extreme distrust and suspiciousness (lifetime prevalence estimate: 0.5–2.5% of the population).

Schizoid personality disorder ■ A pattern of detachment from social relationships and a restricted range of emotional expression (lifetime prevalence estimate: 0.8%).

Schizotypal personality disorder ■ A pattern of eccentricities of behavior, cognitive or perceptual distortions, and acute discomfort in close relationships (lifetime prevalence estimate: up to 3%).

Antisocial personality disorder ■ A pattern of disregard for, and violation of, the rights of others (lifetime prevalence estimate: 2%).

Borderline personality disorder ■ A pattern of instability in interpersonal relationships, self-image, and emotions, impulsivity, and self-destructive behavior (lifetime prevalence estimate: 2%).

Histrionic personality disorder ■ A pattern of excessive, superficial emotionality and attention seeking (lifetime prevalence estimate: 2–3%).

Narcissistic personality disorder ■ A pattern of grandiosity, need for admiration, and lack of empathy (lifetime prevalence estimate: less than 1%).

Avoidant personality disorder ■ A pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation (lifetime prevalence estimate: 0.5–1.0%).

Dependent personality disorder ■ A pattern of submissive and clinging behavior related to an excessive need to be cared for by others (lifetime prevalence estimate: 2%).

Obsessive-compulsive personality disorder ■ A pattern of preoccupation with orderliness, perfectionism, and control at the expense of spontaneity, flexibility, and enjoyment (lifetime prevalence estimate: 1%).

Adapted from DSM-IV-TR (prevalence data from APA, 2000; Torgersen, Kringlen, & Cramer, 2001)

Going to extremes Personality disorders are diagnosed when personality traits are rigid, extreme, and maladaptive. Feeling occasionally clingy with a loved one is very different from chronic and extreme clinginess, a trait associated with dependent personality disorder.
Martin Norris/Alamy Images

Paranoid personality disorder Personality traits involving extreme distrust and suspiciousness.

- *Cluster B* (dramatic, emotional, or erratic) includes *antisocial, borderline, histrionic,* and *narcissistic* personality disorders.
- *Cluster C* (anxious or fearful) includes *avoidant, dependent,* and *obsessive-compulsive* personality disorders.

CLUSTER A: ODD OR ECCENTRIC PERSONALITY DISORDERS

Paranoid Personality Disorder

People with **paranoid personality disorder** believe, in almost all situations, that other people are "out to get" them. They frequently assume that they are being talked about maliciously, that other people are attempting to take advantage of them, or that they are being betrayed by their friends or lovers. In some cases, there may be a grain of truth in their suspicions, as suggested by the aphorism that "even paranoids sometimes have real enemies." But in paranoid personality disorder the suspicions are enormously exaggerated, or, if they are warranted, they are usually provoked by the paranoid individual's hostile behavior. Paranoid personality disorder differs from paranoid schizophrenia (Chapter 12) in that people with paranoid personality disorder are sufficiently in touch with reality to be able to function in daily life, sometimes at a very high level (see Table 11.2).

CASE ILLUSTRATION

Jennifer, age 29, is convinced that her coworkers gossip about her when she is not around. Despite the fact that her colleagues are quite friendly, Jennifer is sure that their kindness is just a "front" and that they are secretly plotting ways to make her look bad in front of her boss. Recently, Jennifer discovered that she was missing some pages from an important presentation she'd been preparing for months. Though her coworkers offered to help her look for the missing pages, Jennifer was convinced that one of them had stolen the pages in order to undermine her presentation. Jennifer had left her last job abruptly when she decided that she could no longer stand the "horrible backstabbing" that went on around the company. At that job, Jennifer was passed over for a promotion that ultimately went to a pleasant but slightly less competent colleague. Jennifer confronted her boss, accused him of sabotaging her chances of promotion, and then quit. Ever since childhood, Jennifer was given to angry outbursts, and she was acutely sensitive to her parents' and teachers' moods. For example, when she sensed that one of her teachers was in a bad mood, Jennifer would decide that the teacher no longer liked her; Jennifer would then become cold and hostile toward the teacher. She has always had trouble maintaining relationships because she invariably becomes jealous, suspicious, and vengeful.

Like Jennifer, people with paranoid personality disorder tend to assume that others have hostile motives and cannot be trusted, even in the absence of objective evidence to confirm such suspicions. It is common for people with paranoid personality disorder to have difficulty in relationships because they are often antagonistic and full of complaints, or highly guarded and emotionally withdrawn (APA, 2000). A hallmark of paranoid personality disorder is the tendency to "take things the wrong way." People with this disorder often hear criticism or condescension where it does not exist and then go on to hold extended grudges in reaction to imagined or unintentional insults or slights. At times, the reaction to perceived slights may go beyond a mere grudge and may take the form of an angry, defensive outburst. Most people with paranoid personality disorder are acutely attentive to cues in their environments, but tend to distort information to support their own paranoid ideas (Pretzer & Beck, 2005). For example, as

TABLE 11.2 Diagnostic Criteria for Paranoid Personality Disorder

A *pervasive distrust and suspiciousness* of others such that their motives are interpreted as malevolent, beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:

- Suspects, without sufficient basis, that others are exploiting, harming, or deceiving him or her.
- Is preoccupied with unjustified doubts about the loyalty or trustworthiness of friends or associates.
- Is reluctant to confide in others because of unwarranted fear that the information will be used maliciously against him or her.
- Reads hidden demeaning or threatening meanings into benign remarks or events.
- Persistently bears grudges; that is, is unforgiving of insults, injuries, or slights.
- Perceives attacks on his or her character or reputation that are not apparent to others and is quick to react angrily or to counterattack.
- Has recurrent suspicions, without justification, regarding fidelity of spouse or sexual partner.

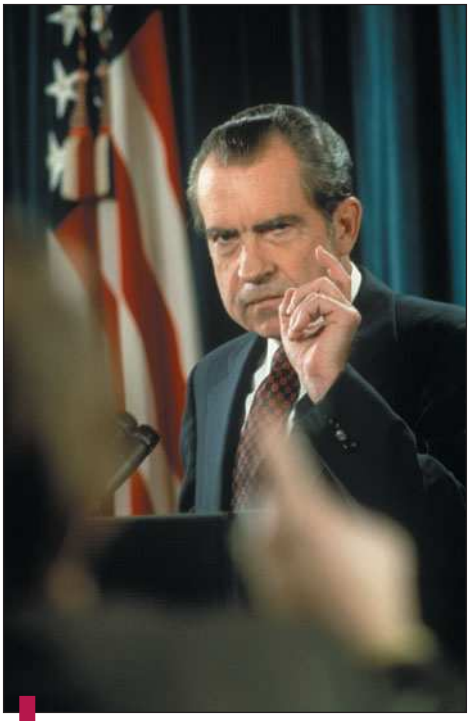
Adapted from DSM-IV-TR (APA, 2000)

a child Jennifer may have been accurate in her perception that her teacher was sometimes in a bad mood. However, she was probably quite wrong in her assumption that her teacher had developed a sudden dislike of her.

Explaining and Treating Paranoid Personality Disorder

Personality disorders, like personality in general, are currently believed to result from the interaction of psychosocial experiences during childhood and inherited **temperamental** traits. Psychodynamic perspectives, which emphasize the lasting effects of early experiences, have dominated the explanation of personality disorders for many years. More recently, cognitive-behavioral and biological approaches have offered important perspectives on explaining and treating personality disorders. We'll begin by describing the psychodynamic and cognitive-behavioral approaches to personality disorders in general and then proceed to specific explanations of particular personality disorders. Summary tables of the psychodynamic, cognitive-behavioral, and biological perspectives on personality disorders are provided at the end of this section (Tables 11.12, 11.13, and 11.14).

Psychodynamic Components The psychodynamic perspective on personality disorders in general focuses on two related areas—problematic childhood relationships and maladaptive defense mechanisms. For example, from a psychodynamic perspective, paranoid personality disorder often begins with repeated childhood experiences of humiliation, criticism, and ridicule (McWilliams, 1994). Such family histories are believed to foster the "attacking" style of the paranoid adult who is often hostile toward others because he or she anticipates being criticized or hurt by them (Kernberg & Caligor, 2005). At the same time, people with paranoid personality disorder often have a distorted view of others due to their frequent and extreme use of the defense mechanism of **projection.** They unconsciously attribute their own hostile feelings to others and then feel threatened and react accordingly. Psychodynamic clinicians also emphasize that paranoid personality disorder involves the paradoxical combination of feelings of



Presidential paranoia Those close to Richard Nixon were familiar with his paranoid view of the world. He trusted few people, even in his inner circle, and surrounded himself with "yes-men" who refused to challenge him.
Dennis Brack/Stockphoto. com

Projection A defense mechanism in which an individual attributes his or her own emotions to someone or something else.

Temperament Innate behavioral tendencies.

inferiority and self-centeredness. A paranoid person focuses on his or her own weaknesses and how they might be exploited. Concurrently, paranoid individuals assume that other people are intently focused on them and their weaknesses.

The psychodynamic concept of *transference,* the phenomenon by which patterns from other relationships are repeated in the therapy relationship, is especially relevant in the treatment of the personality disorders. For example, a paranoid person who goes to psychotherapy may quickly become suspicious of what his or her therapist is "really" thinking. When these feelings, thoughts, and interaction patterns occur (or are "transferred") into the relationship with the therapist, the client and therapist can try to understand and change the client's inappropriate expectations and distortions. The therapist will also address these problematic patterns as they appear in other relationships described by the client.

The psychodynamic emphasis on the importance of the *therapeutic alliance*—a positive, collaborative bond between client and therapist—can pose special challenges for psychotherapy with clients suffering from personality disorders, since people with personality disorders tend to have significant interpersonal difficulties. For example, people with paranoid personality disorder are often extremely uncomfortable in the role of a client and may be reluctant to trust their therapists with information that feels personal or sensitive. Indeed, it is a major therapeutic achievement when a paranoid client begins to believe that a therapist's expressions of interest and concern are benign and genuine (McWilliams, 1994).

Cognitive-Behavioral Components In general, cognitive-behavioral approaches to personality disorders view people's beliefs and expectancies as the basis for the stable aspects of behavior we call personality. In "normal" individuals, these beliefs and expectancies are relatively flexible and adaptive, while in personality disorders they have become rigid and maladaptive. In other words, people with personality disorders impose rigid preexisting beliefs on almost every situation, have difficulty questioning their beliefs, and will continue to act on their beliefs even when such behavior is self-defeating (Beck, Freeman, & Davis, 2004).

Cognitive schemas Organized belief systems.

The cognitive-behavioral perspective on personality disorders, like the psycodynamic pespective, holds that personality disorders often develop out of early life experiences. According to Aaron Beck, childhood experiences establish fixed thought patterns (**cognitive schemas**) that shape interpersonal behavioral strategies and influence how people perceive and interpret all subsequent experiences (Pretzer & Beck, 2005). When maladaptive cognitive schemas are formed early in life, they often persist because "individuals tend to selectively attend to experiences that are consistent with their preconceptions and to be biased toward interpreting their experiences as confirming these preconceptions" (Pretzer & Beck, 2005, p. 70). For example, a person who was taught by his or her parents that other people can't be trusted might recall every example of having been taken advantage of and forget times when he or she was treated fairly. In this way, a person might develop traits associated with paranoid personality disorder.

Cognitive-behavioral approaches to the personality disorders also focus on how maladaptive beliefs and behavioral strategies become self-perpetuating through "self-fulfilling prophecies." In other words, people with personality disorders hold certain interpersonal beliefs, act in accordance with those beliefs in such a way as to influence others to respond accordingly, and then perceive others' responses as evidence in support of their beliefs (see Figure 11.1 for a graphic representation of this cycle in paranoid personality disorder). For example, an overly suspicious, paranoid man might anger his friends with his constant doubts about their loyalty. Unfortunately, the paranoid man will likely see their anger as proof that his friends cannot be trusted.

Cognitive-behavioral interventions for personality disorders aim to identify and challenge distorted cognitive schemas, and to help alter maladaptive behavioral patterns.

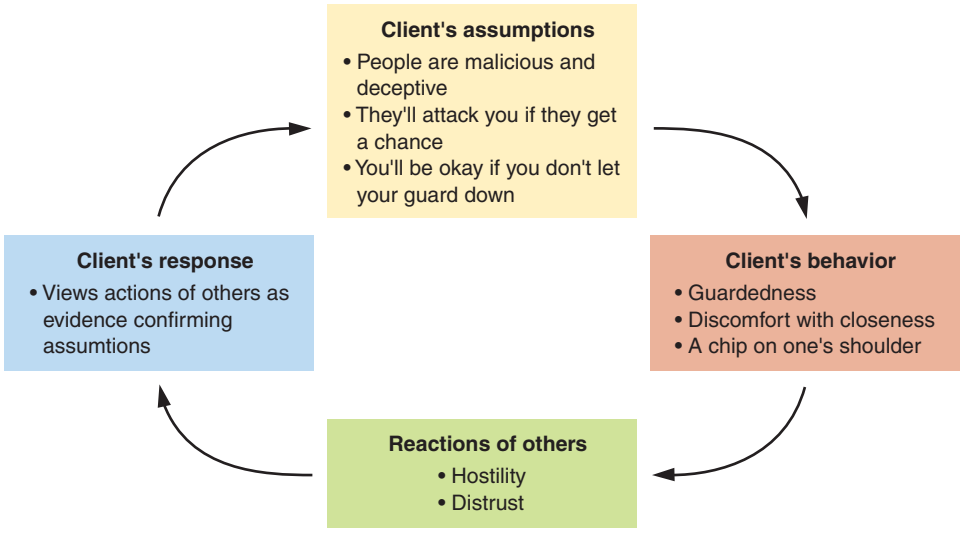


Figure 11.1 Cognitive conceptualization of paranoid personality disorder. As you can see in this model, paranoid assumptions lead to interpersonal behavior that elicits confirmatory responses from others.
Adapted from Freeman et al., 1990, p. 161

Not surprisingly, people with paranoid personality disorder are often reluctant to have their perceptions challenged by a therapist, and they may see such challenges as evidence that the therapist is also "against" them. As a result, cognitive interventions for people with paranoid traits do not aim to alter the client's fundamental assumptions (that people are malicious and cannot be trusted) but instead encourage the client to evaluate the threat posed by particular situations and his or her capacity for coping with these situations (Beck, Freeman, & Davis, 2004). For example, a paranoid person might be helped to recognize that a neighbor who is "out to get him" probably won't resort to violence or do anything else to seriously undermine the client. When clients feel that external threats are less pernicious than originally thought, they may be open to reevaluating their assumption that people are generally malevolent. In the following description Gary, a paranoid man, replaces his dichotomous view that people are either fully trustworthy or untrustworthy with a view that trustworthiness can fall along a continuum:

> *Another series of interventions with particular impact was using the continuum technique to challenge his dichotomous view of trustworthiness, then introducing the idea that he could learn which persons were likely to prove trustworthy by noticing how well they followed through when trusted with trivial issues and raising the question of whether his truly malevolent family was typical of people in general or not. After this, he was able to gradually test his negative view of others' intentions by trusting colleagues and acquaintances with small things and observing their performance. He was pleasantly surprised to discover that the world at large was much less malevolent than he had assumed, that it contained benevolent and indifferent people as well as malevolent ones, and that when he was treated badly, he could deal with the situation effectively.*
>
> *Beck, Freeman, & Davis, 2004 (p. 133)*

BRIEF SUMMARY

- The psychodynamic perspective on personality disorders in general emphasizes disruptive early childhood experiences with caretakers and a reliance on maladaptive defense mechanisms. In paranoid personality disorder, parental criticism and ridicule, and the extreme use of projection, are thought to be central factors.
- The cognitive-behavioral perspective on personality and personality disorders emphasizes that childhood experiences shape thought patterns (*cognitive schemas*),

establish interpersonal strategies, and influence the patterns of perception and behavior that become personality traits. Parents influence personality development through direct instruction and modeling behavior. Cognitive-behavioral interventions for paranoid personality disorder focus on altering the maladaptive beliefs and behaviors that perpetuate a cycle of paranoia.

Schizoid Personality Disorder

Schizoid personality disorder Personality traits involving detachment from social relationships and a restricted range of emotional expression.

Schizoid personality disorder is characterized by emotional detachment and a lack of interest in personal relationships—extending even to indifference toward relationships with family members or potential sexual partners. People who suffer from this disorder are usually considered to be "loners," although unlike people with *autism* and *Asperger's disorder* (which are also characterized, in part, by social and emotional detachment; see Chapter 13) they can usually function adequately in social situations when they need to. However, people with schizoid personality disorder tend to keep to themselves, enjoy a very limited range of interests, and are detached to the point of seeming emotionless (see Table 11.3).

CASE ILLUSTRATION

Jenine has spent most of her life doing things alone. Even though she grew up in a neighborhood where children played games at the local park after school, she preferred to spend afternoons watching television by herself or working on her computer. She expressed little interest in making friends in high school and, to her parent's surprise, did not seem to mind the fact that she never went to a school dance or out on a date. Currently employed at a factory, she has one friend who will sometimes call and ask her to go to video gaming, but otherwise Jenine spends her spare time reading or watching television. Jenine's parents are quite upset about her limited social life, but they are aware that she does not seem to be particularly sad or joyful about anything, including the fact that she spends most of her time by herself.

Like Jenine, most people with schizoid personality disorder seem to be indifferent to interpersonal relationships. They appear to be unemotional and often try to spend as much time alone as possible. In most cases, people with schizoid personality disorder have few, if any, friendships and do not seem to derive any pleasure from spending time with people (APA, 2000). Occasionally, they may be drawn into relationships with

TABLE 11.3 Diagnostic Criteria for Schizoid Personality Disorder

A pervasive pattern of *detachment from social relationships and a restricted range of expression of emotions* in interpersonal settings, beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:

- Neither desires nor enjoys close relationships, including being part of a family.
- Almost always chooses solitary activities.
- Has little, if any, interest in having sexual experiences with another person.
- Takes pleasure in few, if any, activities.
- Lacks close friends or confidants other than first-degree relatives.
- Appears indifferent to the praise or criticism of others.
- Shows emotional coldness, detachment, or flattened affect.

Adapted from DSM-IV-TR (APA, 2000)

extremely gregarious people, but they appear to be passive and indifferent with regard to their relationships. Some theorists propose that people with schizoid personality disorder suffer from a fundamental inability to sense what other people feel and want (Millon et al., 2004), while others have proposed that schizoid dynamics involve a painful hypersensitivity to emotions and a profound discomfort with feelings stirred by everyday relationships (Doidge, 2001; McWilliams, 2006). People with schizoid personality disorder tend to seek out vocations that do not involve interpersonal contact, such as programming computers or working as a nighttime security guard. Indeed, they may flourish in careers that reward long hours of solitary work.

Explaining and Treating Schizoid Personality Disorder

Recent evidence suggests that some of the personality disorders, including schizoid personality disorder, may involve a significant biological component. We'll consider the psychodynamic and cognitive-behavioral explanations of the causes and treatments for schizoid personality disorder and then turn our attention to the biological perspective.

Psychodynamic Components Psychodynamic theorists view schizoid personality disorder as a defensive **withdrawal** from full human connectedness and feeling in response to the expectation of overwhelming pain or disappointment in relationships (Gabbard, 2000). Emotionally distressing early attachments to parental figures are assumed to have carried forward to adulthood, where relationships are seen as distressing, not pleasurable, and are consequently avoided. Some psychodynamic clinicians suggest that parental behavior can undermine a child's wish to attach to and engage important emotional figures (Doidge, 2001). For example, a child whose parents alternate between being overstimulating or intrusive and being cold or invalidating may soon withdraw from relationships as a way of maintaining some sense of emotional comfort.

Withdrawal A defense mechanism in which an individual retreats from emotional engagement with others.

Intellectualization A defense mechanism in which a detached rational approach is used to protect against upsetting emotions.

In addition to *withdrawal*, the defense mechanism of **intellectualization** is also associated with schizoid traits (McWilliams, 1994). In intellectualization, emotions and emotional experiences are thought about, not felt, thus accounting for the "cold fish" style in people with schizoid personality disorder. People with schizoid personality disorder rarely seek therapy of their own accord, but when they do, psychodynamic interventions emphasize patience and warm acceptance as a way to help a person with schizoid traits feel safe in a psychotherapy relationship (Gabbard, 2000; McWilliams, 2006).

Cognitive-Behavioral Components As described earlier, the cognitive-behavioral perspective on personality disorders in general emphasizes rigid and maladaptive beliefs and expectancies, fixed thought patterns, and self-defeating and self-perpetuating behavioral strategies. People with schizoid personality disorder tend to think of themselves as "loners" and to value their seclusion from others. While they may notice that other people derive pleasure from interpersonal relationships, people with schizoid personality are unresponsive to, or have difficulty interpreting, emotional cues from others. As a result, they are inclined to believe that human involvement is unnecessarily complicated and painful (Beck, Freeman, & Davis, 2004). Thus, they isolate themselves and withdraw into their own private mental lives to avoid pain; the comfort they experience when alone negatively reinforces their withdrawal behavior.

Biological Components While personality disorders are usually explained in terms of psychosocial influences (for example, family relationships) on personality development, many normal personality traits have a substantial genetic basis, and the same appears to be true of some abnormal personality traits. Research on *temperament*—innate behavioral tendencies that are present at birth—indicates that some personality disorders may result from an interaction between genetically based temperament and specific

environmental influences. For example, some evidence suggests that babies who are born with highly sensitive and easily overstimulated temperaments might "pull back" emotionally from caregivers who are too active or intrusive (Eigen, 2004; Thomas, Chess, & Birch, 1970; Winnicott, 1965). This kind of temperament, sometimes referred to as "difficult" temperament, has been linked with schizoid and schizotypal (described subsequently) personality disorders (Coid, 1999). In keeping with the ***principle of multiple causality***, schizoid traits might emerge from an unfortunate combination of a child's biological predisposition to a "difficult" temperament in combination with a troubled or painful relationship with his or her parents.

Schizotypal Personality Disorder

Schizotypal personality disorder Personality traits involving eccentricities of behavior, cognitive or perceptual distortions, and acute discomfort in close relationships.

Psychotic A state of being profoundly out of touch with reality.

Schizotypal personality disorder is characterized by a pervasive, chronic, and dysfunctional eccentricity in behavior, appearance, and thinking. People with this disorder tend to be anxious, suspicious, socially awkward, and somewhat isolated. They also have some of the thought and perceptual disturbances associated with schizophrenia, a **psychotic** disorder (Chapter 12), and genetic and biological evidence suggests that schizotypal personality disorder may, in fact, be closely related to schizophrenia (Parnas, Licht, & Bovet, 2005). However, while people with schizotypal personality disorder have distinctly odd thoughts, perceptions, and behaviors, they are not out of touch with reality, as a psychotic person would be (see Table 11.4).

CASE ILLUSTRATION Martin has always been considered somewhat eccentric. As a teenager he developed a habit of dressing in colors that he felt characterized his mood for the day. When in a good mood he would wear clothes that were all yellow or all red; when feeling down he wore all blue or all black. Martin also believed that the color of his clothing could influence the moods of others—if a sad person saw Martin wearing red, Martin imagined that the person would cheer up. After finishing

TABLE 11.4 Diagnostic Criteria for Schizotypal Personality Disorder

A pervasive pattern of *social and interpersonal deficits* marked by acute discomfort with, and reduced capacity for, close relationships as well as by *cognitive or perceptual distortions and eccentricities of behavior,* beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

- The feeling that casual incidents and external events have a particular and unusual self-referential meaning (ideas of reference).
- Odd beliefs or magical thinking that influence behavior and are inconsistent with subcultural norms (for example, suspiciousness, belief in clairvoyance, etc.).
- Unusual perceptual experiences, including bodily illusions.
- Odd thinking and speech.
- Suspiciousness or paranoid ideas.
- Inappropriate or constricted affect.
- Behavior or appearance that is odd, eccentric, or peculiar.
- Lack of close friends or confidants other than first-degree relatives.
- Excessive social anxiety that does not diminish with familiarity and tends to be associated with paranoid fears rather than feeling negatively about oneself.

Adapted from DSM-IV-TR (APA, 2000)

high school, Martin went to work at a convenience store near his home and he lost contact with his few friends from school. Though he liked the job he often felt quite uncomfortable around customers because he suspected that they said mean things about him when they left the store. For a while, Martin developed a crush on a woman named Shelia, one of his coworkers at the convenience store, but his strange behavior and ideas put her off. He wrote her long and rambling love letters that never seemed to come to a point and told her that he was sure that they were meant for each other because they both chose the same kind of employment. After a while, Shelia complained to her manager about Martin's odd attempts at courtship. When confronted by the manager, Martin agreed to "back off" but continued, for several years, to hope that he could make Shelia develop an interest in him by thinking nice thoughts about her every day.

Strange habits People suffering from schizotypal personality disorder dress and conduct themselves in ways that are odd, eccentric, or peculiar.
S. Grandadam/Alamy Images

Schizotypal personality disorder shares several features with both paranoid and schizoid personality disorders. Like people with paranoid personality disorder, people with schizotypal personality disorder tend to be suspicious of others and distrusting of their motives, and fail to develop close relationships, even with people they know well. Like people with schizoid personality disorder, those with schizotypal personality disorder frequently lack interest in or understanding of close relationships and have a constricted range of emotions. However, the disorder differs from the paranoid and schizoid personality disorders in that it is characterized by strange or eccentric thinking, appearance, and behavior. **Ideas of reference**—beliefs that normal events contain special, personal meanings—and **magical thinking**—the idea that one can control events with thoughts—are common in schizotypal personality disorder. For example, a person with this disorder might believe that he had caused a rain shower by making a plan to rent the movie *Singing in the Rain.* People with this disorder often have strange patterns of speech, such as being excessively vague or circumstantial, or they may use words in unusual ways (for example, saying that one is "underready" to take on a new task) (APA, 2000).

Ideas of reference Idiosyncratic beliefs that normal events contain "special" meanings.

Magical thinking Believing that one's thoughts influence external events.

Primary process thought The illogical, childlike mode of thinking that is associated with the unconscious mind.

Secondary process thought Logical, reality-oriented thinking.

Explaining and Treating Schizotypal Personality Disorder

The psychodynamic and cognitive-behavioral approaches help to illuminate the nature of the thought disturbances typically associated with schizotypal personality disorder. In terms of causality, schizotypal personality disorder appears to result largely from biological abnormalities. As noted earlier, research evidence suggests that schizotypal personality disorder and schizophrenia share a common genetic basis, even though the specific genes involved in each of these disorders have not yet been identified.

Psychodynamic Component Psychodynamic theorists posit that schizoid personality disorder, schizotypal personality disorder, and schizophrenia (Chapter 12) form a continuum that ranges from social isolation and detachment (schizoid) to paranoia and magical thinking (schizotypal) to frank psychosis (schizophrenia) (Gabbard, 2000; PDM Task Force, 2006). In psychodynamic terms, cognitive and perceptual schizotypal features occur when the ego fails to function in its adaptive role, and allows for **primary process thought** to break through into consciousness (Millon et al., 2004). *Primary process* thinking is the illogical, childlike mode of thinking that is associated with the unconscious mind and that emerges into consciousness in healthy adults during dreams, jokes, and slips of the tongue. In the course of normal ego development **secondary process thought**—logical, reality-oriented thinking—comes to dominate over *primary process* thought. Thus, in psychodynamic terms, people with schizotypal personality disorder differ from psychologically healthy individuals in that their waking cognition is infused with *primary process* thought.

Cognitive-Behavioral Components Although schizotypal personality disorder may have a substantially genetic basis, the disorder is characterized by a particular cognitive style. People with schizotypal personality disorder make strange connections among disparate phenomena, have highly idiosyncratic views of causal relationships (such as Martin's belief that the color of one's clothes can alter another person's mood), and can become easily lost in the back alleys of their own cognitive processes (Millon et al., 2004). People with schizotypal personality disorder have poor interpersonal relationships, largely because they have unusual thought patterns and difficulty reading interpersonal cues. Not surprisingly, schizotypal personality disorder presents a challenge for cognitive interventions that use reason, logic, and objective evaluation to examine maladaptive thought patterns. Cognitive-behavioral interventions for schizotypal personality disorder tend to focus on improving social skills, managing anxiety, and improving social problem solving (Freeman et al., 2004).

Biological Components People who suffer from schizotypal personality disorder may have less severe forms of the structural and functional brain abnormalities typically seen in schizophrenia. For example, studies comparing the *ventricles* (fluid-filled spaces within the brain) of people with schizophrenia, people with schizotypal personality disorder, and normal individuals found that the ventricles were significantly enlarged in schizophrenics, somewhat less enlarged among people with schizotypal personality disorder, and of normal size in the unaffected research participants (Buchsbaum et al., 1997; Koo et al., 2006). Furthermore, people suffering from schizotypal personality disorder share many of the same attentional, cognitive, and neurotransmitter abnormalities seen among people suffering from schizophrenia (Hazlett, Levine, & Buchsbaum, 2003; Siever & Davis, 2004) and are at an increased risk for developing schizophrenia (Miller et al., 2002). Antipsychotic drugs that are typically used to treat schizophrenia have been found, in low doses, to help clients with schizotypal personality disorder control their unusual thoughts and perceptions (Koenigsberg et al., 2003).

CLUSTER B: DRAMATIC, EMOTIONAL, OR ERRATIC PERSONALITY DISORDERS

Antisocial Personality Disorder

Antisocial personality disorder Personality traits involving profound disregard for, and violation of, the rights of others.

People with **antisocial personality disorder** are not "antisocial" in the everyday vernacular sense of avoiding social contact. Rather, the term *antisocial* indicates a profound disregard for other people's rights. People with antisocial personality disorder focus solely on their own interests and do so at the expense of others. A common feature of this disorder is lack of remorse: Individuals with the disorder may feel little, if any, guilt about their misbehavior. When confronted about their misdeeds, they typically feel angry about being accused, not apologetic for their actions. It is important to note that while antisocial behavior often involves criminal acts, not all criminals suffer from antisocial personality disorder; criminal acts can be committed by people who do not have the pervasive, long-standing personality patterns that characterize antisocial personality disorder (see Table 11.5).

Given that criminality occurs in every culture and has been an element of every historical period, it should come as no surprise that the effort to describe and classify antisocial behavior has a long history. In the nineteenth century, European and American criminals were considered to be suffering from "moral insanity" and were subjected to banishment, severe punishments, and often execution (Cloninger, 2005).

TABLE 11.5 Diagnostic Criteria for Antisocial Personality Disorder

A pervasive pattern of *disregard for and violation of the rights of others,* beginning in childhood or adolescence and continuing into adulthood, as indicated by three (or more) of the following:

- Failure to conform to social norms with respect to lawful behaviors as indicated by repeatedly performing acts that are grounds for arrest.
- Deceitfulness, as indicated by repeated lying, use of aliases, or conning others for personal profit or pleasure.
- Impulsivity or failure to plan ahead.
- Irritability or aggressiveness, as indicated by repeated physical fights or assaults.
- Reckless disregard for safety of self or others.
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behavior or to honor financial obligations.
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another person.

Adapted from DSM-IV-TR (APA, 2000)

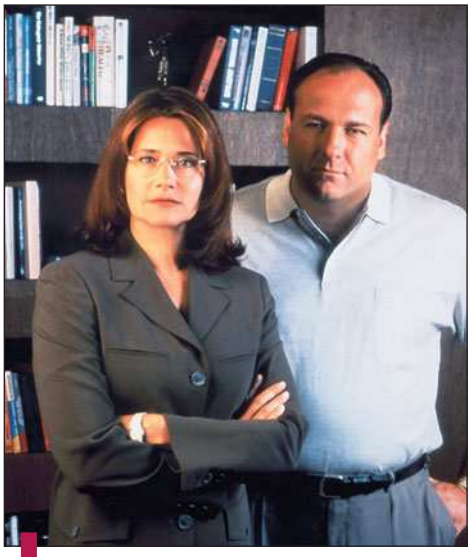
The term *psychopathic* emerged at the end of the nineteenth century and was used by some professionals to refer to all forms of psychopathology and by others to refer specifically to dangerous criminals. In an effort to clear up the confusion surrounding the term *psychopath,* the first edition of the DSM adopted the term *sociopathic personality disturbance* to describe aggressive, criminal personalities (Ozarin, 2001). The term *antisocial* was adopted in the 1968 revision of the DSM and has been used in all subsequent editions.

You'll note that the diagnostic criteria for antisocial personality disorder can apply to a wide range of individuals, from those who are irresponsible, impulsive, and wreckless (but potentially penitent about their behaviors) to those who are dangerously aggressive, cold-blooded, and remorseless. In colloquial discourse, the terms *psychopath* or *sociopath* are generally reserved for the creepiest subset of antisocial behavior: the calm, callous, violent criminal.

CASE ILLUSTRATION When the police arrested Nick, a 24-year-old unemployed man, for mugging a 65-year-old woman as she walked home from church, he denied that he had been anywhere near her neighborhood and seemed appalled at the implication that he might have committed a crime. As the investigation continued, the police discovered that Nick had a long history of similar crimes, and they also found two eyewitnesses to the mugging. When confronted with this evidence, Nick admitted that he had mugged the woman, explaining that he needed the money to visit a friend. When the police asked why he had hit a defenseless 65-year-old woman, Nick stated matter-of-factly that she had hesitated too long before handing over her purse. Nick was convicted and jailed, and in prison he quickly developed a reputation for having an uncanny ability to get his way. For example, Nick charmed one of the guards into buying him a carton of cigarettes each week in exchange for Nick's promise that he would exert his influence to keep order among the other prisoners. When one of the supervisory staff became aware of the contraband cigarettes, Nick did not hesitate to turn in the guard who purchased the cigarettes in order to avoid being punished himself.

Grinning criminals Gary Gilmore arrives at court on December 1, 1976, for a hearing to set the date of his execution. Gilmore was convicted of killing two men. The smirk on his face exemplifies the lack of remorse that is one of the features of antisocial personality disorder.
©AP/Wide World Photos

Interacting risk factors Biological causes of antisocial personality disorder may interact with broader sociocultural factors. For example, in utero drug exposure appears to be linked with childhood aggression, and mothers who abuse drugs while pregnant are more likely to live in poor, crime-ridden neighborhoods where children are just as likely to play with guns as they are to play with bikes.
Tyrone Turner/Stockphoto.com



Neurotic mobster Despite his deeply antisocial behavior, Tony Soprano (played by James Gandolfini) of HBO's *Sopranos* engages in an on-again, off-again psychotherapy with Dr. Melfi (played by Lorraine Bracco). Clinicians and nonclinicians alike were fascinated by the fictional gangster's efforts to come to terms with his anxiety, depression, and feelings about his mother.
Photofest

While the DSM-IV-TR criteria highlight the criminal aspects of antisocial behavior, personality disorder experts point out that people with antisocial traits do not necessarily break laws. In fact, they can flourish in careers that require a "take no prisoners" and "look out for number one" approach (Millon & Davis, 1996, p. 429). Experts do emphasize, however, that most people with antisocial personality disorder are emotionally callous and indifferent to accepted social morality. Such individuals have no compunction about lying, manipulating, and taking advantage of others. They may be aggressive, impulsive, and quick-tempered, traits that sometimes lead to assaultive behavior. But a central feature of the disorder is the lack of regard or empathic concern for others' rights or feelings. In his book, *Shot in the Heart,* Mikal Gilmore includes the following description of the childhood activities of his brother, Gary Gilmore, who became infamous as an adult for committing two senseless murders and being put to death in 1977.

> *One day Gary and a couple of other toughs pantsed some guy in the school yard. They held him down and pulled his pants and shorts off him and ran them up the flagpole. . . . Gary didn't do it for any reason except to be funny. But I could see right then, there was a cruel streak developing in him. Ripping some poor guy's shorts off and running them up the flagpole, leaving the guy standing there in his buff, trying to find something to cover himself with. That wouldn't have been much fun. The guy was a nice guy. He was someone I got along with.*
>
> *Gilmore, 1994 (p. 132)*

Explaining and Treating Antisocial Personality Disorder

The high social costs of antisocial personality traits have fostered a great deal of research on the causes of and treatments for the disorder. Explanations of antisocial personality disorder provide an especially good illustration of the ***principle of multiple causality***, since current evidence suggests that psychodynamic, cognitive-behavioral, biological, and sociocultural factors interact to cause the disturbing behavior associated with this disorder.

Identification with the aggressor A defense mechanism in which an individual causes others to experience the victimization, powerlessness, or helplessness that he or she has experienced in the past.

Psychodynamic Components Research evidence suggests that people who develop antisocial personality disorder tend to come from families that are emotionally turbulent, cruel, and prone to physical abuse (Akhtar, 1992; Stone, 2006). Children in these families often experience feelings of helplessness in the face of their parents' anger and violence. Psychodynamic clinicians emphasize that such individuals may begin to use the defense mechanism of **identification with the aggressor** in which they cause *others* to experience the victimization, powerlessness, and helplessness that they felt overwhelmed by as children. In other words, the antisocial person who spent his childhood feeling like a scared and helpless victim may spend his adulthood scaring and victimizing others. People with antisocial personality disorder are rarely able to talk about their own emotional experiences; the antisocial person *acts* instead of feels. Psychodynamic clinicians have also focused on other problematic aspects of early childhood attachments among people who develop antisocial personality disorder. Normal parent-child attachment paves the way for the internalization of a morally guiding *superego* and the ability to empathize with others. People with antisocial personality disorder show abnormal superego functioning and a lack of empathic ability to imagine how others feel, presumably due to disrupted parent-child relationships (Gabbard, 2000).

Cognitive-Behavioral Components A number of research studies have found that many antisocial adults are the children of antisocial parents (Cloninger, 2005).

Although this link is partly genetic, parents who **model** behaviors associated with antisocial personality disorder (such as violence, deceitfulness, or impulsivity) may teach their children that such behaviors are acceptable and rewarded. Other behavioral theorists emphasize that antisocial traits are *reinforced* when parents reward manipulative or abusive behavior. For example, a parent who gives in to—or outright encourages—a child's misbehavior may teach the child that he can get what he wants by being aggressive and coercive (Granic & Patterson, 2006). Consider the following case description:

Modeling Learning based on observing and imitating the behavior of others; see also: **social/observational learning**.

> *Allen was a 10-year-old boy who was admitted to the hospital by his parents. During the admission interview with the psychiatrist and social worker, his mother and father described a long history of aggressive behavior. Allen had repeatedly fought at school, engaged in minor acts of vandalism of neighbors' property, and refused to obey his parents. Allen's father described the incident that finally precipitated his son's admission to the hospital: "This old guy was driving by our house, and Allen was out in the yard with his bow and arrow. Even though the guy was driving 35 miles an hour, Allen was able to shoot an arrow through the car's windshield and hit the guy in the eye. You have to admit that it was a pretty good shot." As a smile flickered across Allen's father's lips, a confused look appeared on Allen's face.*
>
> *Gabbard, 2000 (pp. 497–498)*

In addition, antisocial personality disorder is characterized by a variety of cognitive deficits. The impulsive and aggressive behavior commonly associated with antisocial personality disorder reflects impairment in the ability to connect actions and their consequences (Millon & Davis, 2000). Similarly, people with antisocial traits attend largely to their own self-interests and appear to lack the ability or inclination to consider how their actions might be damaging or hurtful to others. Although cognitive and behavioral interventions can try to address these deficits, most therapists are pessimistic about outcomes when working with clients with antisocial personality disorder. However, cognitive therapies that focus on problem solving, anticriminal attitudes, and the development of a positive therapeutic relationship have yielded some moderate, but positive, results (Cloninger, 2005). Behavioral interventions that aim to teach responsible behavior through the use of consistent punishments for inappropriate behavior and rewards for positive behavior have also been found to be effective for some people with antisocial personality disorder (Messina, Farabee, & Rawson, 2003).

Biological Components Research has demonstrated that antisocial personality disorder may involve a deficiency in normal anxiety reactions (see Box 4.1). Actions that would make most people uncomfortably anxious, such as committing a violent crime, are not necessarily anxiety provoking to a person with antisocial traits. In other words, people with antisocial personality disorder fall at the other end of the anxiety continuum from people who are overanxious and vulnerable to anxiety disorders (Levenston et al., 2000). The cause of this "anxiety deficiency" is not fully understood at present, but researchers generally assume that it has a genetic basis.

Another biological perspective on antisocial personality disorder draws on research findings that prenatal drug exposure leads to negative social, psychological, and academic outcomes. *In utero* exposure to cocaine, nicotine, marijuana, and a variety of other drugs has been linked to attention-deficit problems, impulsivity, and delinquency in childhood (Goldschmidt, Day, & Richardson, 2000; Mayes, 1999; Wakschlag et al., 2002). Unfortunately, mothers who abuse substances while

Multiple causality

pregnant are also more likely to mistreat their children, have large families, have closely spaced pregnancies, and be poor. In keeping with the ***principle of multiple causality***, these factors, especially in combination, further increase the risk of antisocial behavior in their children (Olds et al., 1998).

One study evaluated anxiety impairment and structural brain abnormalities in antisocial personality disorder by comparing men with the disorder with men in three comparison groups: men who had no diagnosis, men who were substance dependent, and men with other psychiatric diagnoses. The prefrontal white and gray brain matter of the antisocial research participants was significantly smaller than that of members of all three comparison groups. In turn, small prefrontal gray matter volumes were associated with lower rates of skin conductance (a measure of anxiety) during a stressful social interaction (Raine et al., 2000). Some researchers have speculated that people with antisocial personality disorder feel chronically understimulated and engage in dangerous or risky behaviors partly in order to raise their level of physiological arousal.

Sociocultural Components Low family socioeconomic status and poor neighborhood socioeconomic status have emerged as clear risk factors for the development of antisocial behavior (Leventhal & Brooks-Gunn, 2000). In a fascinating study of the impact of poverty on mental health, researchers measured the psychological symptoms of native American children before and after the opening of a casino on their reservation (Costello et al., 2003). The revenues from the casino gave every native American family an income supplement that increased annually and created three groups for the researchers to compare: families that were moved out of poverty (14%), families that remained poor (53%), and families that were never poor (32%). Before the opening of the casino, the poor children had more symptoms of mental illness than the never-poor children. After the casino opened, symptoms among children in the ex-poor group fell to the same low levels as the never-poor children, while the persistently poor children continued to experience high rates of psychological symptoms. Of greatest interest was the finding that the drop in symptoms applied only to conduct and oppositional defiant disorder—two disorders that are often the childhood precursors to antisocial personality disorder—but *not* to symptoms of depression and anxiety. In other words, this study demonstrated that low socioeconomic status appears to be a risk factor *specifically* related to antisocial behavior, not to psychopathology in general.

Borderline Personality Disorder

Borderline personality disorder Personality traits involving instability in interpersonal relationships, self-image, and emotions, impulsivity, and self-destructive behavior.

Borderline personality disorder is one of the most dramatic mental disorders (see Box 11.1 for more on the term *borderline*). People with this disorder struggle with chronic instability and disruption in their relationships, their sense of themselves, and their behavior (APA, 2000). They exhibit emotional volatility, impulsivity, and self-destructive or suicidal behavior. Borderline personality disorder may also include episodes of *depersonalization* (feeling extremely detached from oneself, a *dissociative* symptom; see Chapter 7) and self-injury, often in the form of cutting or burning one's own skin. The self-injurious and suicidal behaviors associated with borderline personality disorder are often used to manipulate others, such as threatening to commit suicide if a romantic partner decides to leave. The extreme quality of these behaviors speaks to the intense fear of abandonment that is one of the hallmarks of borderline personality disorder (see Table 11.6).

TABLE 11.6 Diagnostic Criteria for Borderline Personality Disorder

A pervasive pattern of *instability of interpersonal relationships, self-image, emotions, and impulsivity,* beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

- Frantic efforts to avoid real or imagined abandonment.
- A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation.
- Identity disturbance: markedly and persistently unstable self-image or sense of self.
- Impulsivity in at least two areas that are potentially self-damaging (for example, spending, sex, substance abuse).
- Recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior.
- Affective instability due to marked reactivity of mood (for example, intense episodic sadness, irritability, or anxiety usually lasting a few hours and rarely more than a few days).
- Chronic feelings of emptiness.
- Inappropriate, intense anger or difficulty controlling anger (for example, frequent displays of temper, constant anger, recurrent physical fights).
- Transient, stress-related paranoid thinking or severe dissociative symptoms.

Adapted from DSM-IV-TR (APA, 2000)

BOX 11.1 Naming a Disorder

WHY "BORDERLINE?"

Personality disorder experts have pointed out that "borderline" is not really a very good name for a psychological disorder (Aronson, 1985; Fromm, 1995). The term *borderline* does not refer to behaviors or emotional experiences as do most other diagnostic labels (such as *substance dependence* or *depression*). The word is really better suited to descriptions of physical locations, such as the edge or border of an area, or a space between two identifiable points on a continuum. Yet, despite the term's lack of descriptive specificity, *borderline* does capture several salient features of this syndrome of maladaptive personality traits.

The "Border" Between Neurotic and Psychotic Functioning

People with borderline personality disorder seem to function at a level in between (or on the "borderline" between) neurotic and psychotic functioning. Much of the time they seem neurotic, meaning that they—like many people—experience some impairments in functioning as a result of trying to manage emotional conflicts, but they do not lose touch with reality. However, there are times when people with borderline personality disorder may lose contact with reality and become psychotic. Even though these episodes are usually brief, their presence marks an important distinction between borderline personality disorder and most other personality disorders.

The "Border" Between Emotional Extremes

People with borderline traits are known for moving quickly from one emotional extreme to another. A man with borderline personality disorder who deeply admires one of his colleagues might soon find the same colleague utterly detestable if the colleague disappoints or lets him down. Similarly, people with borderline personality disorder often struggle with wild and unstable moods. They may appear to be quite happy one minute and then enraged the next, without any obvious reasons for the radical changes in their feelings. Such emotional flip-flopping can give the impression that they exist on the border of a number of feeling states and can move very rapidly from one to another.

Poor Interpersonal "Borders"

Normal interpersonal boundaries or "borders" are frequently disregarded by people with borderline personality disorder. For example, people with borderline traits may be overly hostile, or flirtatious and familiar, with new acquaintances. They throw themselves into relationships; after one date, a woman with borderline personality disorder declared that she had found "the love of her life" and "the most interesting and loyal person I have ever known." Although these feelings are often short-lived (and are likely to switch quickly to the polar opposite), in the moment they are very real and intense.

CASE ILLUSTRATION Lou, a 27-year-old salesman, has long-term friendships with several male friends, but he has what he calls "trouble with women." Lou's good looks and charm make it easy for him to get dates, but he has difficulty sustaining a relationship over a long period of time. In his most recent relationship he fell "madly in love" in just a few days, and he and his girlfriend enjoyed a whirlwind beginning to their romance. But when his new girlfriend needed to leave town for a short business trip, Lou was devastated. After a long night of drinking, he called his girlfriend at her hotel to say that he felt unwanted and alone and that if she did not cut her trip short he might hurt himself. Lou's friends have watched him go through several similar experiences with other women. His friends have even noticed that Lou becomes surprisingly angry with them when they have to change or cancel plans they have made with him. Recently, Lou received a somewhat critical evaluation from one of his supervisors at work. The negative tone of the evaluation came as a complete surprise to Lou despite the fact that he had missed work repeatedly over the prior six months. He impulsively confronted his supervisor, whom he had previously liked, and badmouthed him as an "evil idiot" to his coworkers. Lou then left work early, went home, and drank from his liquor cabinet until he passed out.

Many of the problem behaviors associated with borderline personality disorder stem from maladaptive attempts to cope with extreme emotional distress. People with borderline personality disorder often report that they feel "empty" and that they long for close relationships to help them feel secure. However, such heavy dependence on others for emotional security results in anxiety or anger about the possibility of losing a meaningful relationship. Not surprisingly, the friends and lovers of people with borderline personality disorder often feel "burned out" by the excessive demands and expectations placed on their relationships; a vicious cycle ensues as the borderline person's neediness only increases the likelihood that he or she *will* be abandoned.

People with borderline personality disorder often become quickly and deeply involved in new relationships, and any perception that a relationship might end sets off feelings of terror, desolation, and fury. What might feel like a painful but tolerable breakup to most people creates an emotional firestorm for people with borderline personality disorder. Much of the "acting out" and manipulative behavior associated with the disorder (binge drinking and eating, sexual promiscuity, self-mutilation, suicidal gestures) can be understood as maladaptive efforts to control or numb painful feelings or to regain a threatened relationship. Similarly, people with this disorder sometimes describe feeling so overwhelmed by confusing emotions that relief comes only from making emotional pain "concrete" in the form of an injury such as cutting oneself with a knife or burning oneself with cigarettes. At other times, intense emotions can cause people with borderline personality disorder to become extremely detached from themselves and their surroundings. Many people with this disorder report that they can feel "real" again only if they see themselves bleed or feel the physical pain of a self-induced injury (APA, 2000).

Avoiding abandonment at all costs In the 1987 film *Fatal Attraction*, Glenn Close plays a woman with many features of borderline personality disorder. When her married lover (played by Michael Douglas) attempts to cut ties with her after a weekend-long affair, she threatens suicide to keep him from leaving.
Photofest

Explaining and Treating Borderline Personality Disorder

We'll begin by considering how the psychodynamic, biological, and cognitive-behavioral perspectives explain and treat borderline personality disorder and then turn our attention to an innovative treatment approach that effectively combines all three perspectives.

Psychodynamic Components Some psychodynamic theorists have focused on difficulties in the mother-child relationship as a contributing cause of borderline personality disorder. Margaret Mahler, an important psychodynamic theorist on the topic, concluded that adults who manifest borderline traits were raised by unreliable and

inconsistent primary caretakers who interfered with the normal process by which children learn to manage difficult feelings and to function independently (1971). Recent research supports Mahler's theory by indicating that the parents of people who develop borderline traits are not merely unreliable, they are often abusive. Several studies have shown that a high percentage of borderline adults were physically and/or sexually abused as children (Soloff, Lynch, & Kelly, 2002). Studies of borderline personality disorder in clinical settings have found that between 40 and 76% of adults report childhood histories of sexual abuse, while 25 to 73% report childhood histories of physical abuse (Zanarini, 2000). Further research indicates that the severity of childhood abuse is positively correlated with the severity of borderline psychopathology in adults (Zanarini et al., 2002). Thus, it appears that many people who develop borderline personality disorder grow up with a particularly unfortunate combination of circumstances: exposure to trauma (such as emotional, physical, or sexual abuse) and inadequate parental help with managing the painful emotions that inevitably result from trauma. Even in the absence of trauma, studies have found that many people with borderline personality disorder have parents they experienced as unempathic, and they report being raised in stressful and chaotic environmental circumstances (Golomb et al., 1994).

People with borderline personality disorder tend to see others (and themselves) as all-good *(idealized)* or all-bad *(devalued).* This is often referred to as **splitting**, a defense mechanism that protects against painful mixed, or ambivalent, feelings by resorting to "black and white" thinking. By idealizing others ("Bill is the kindest, warmest, most gentle person ever!"), a person with borderline traits attempts to reassure herself that she will not be hurt or disappointed and that all bad feelings have been banished. But any disappointment, even a minor one such as a failure to return a phone call promptly, may lead to devaluation, the other side of the idealization coin ("I hate Bill, he is a selfish, unreliable jerk!"). Devaluation works as a defense mechanism by decreasing the importance of the person who has just inflicted a painful emotional injury and by externalizing all feelings of "badness" outside the self.

Splitting A defense mechanism in which one views oneself or others as all-good or all-bad in order to ward off conflicted or ambivalent feelings.

Cognitive-Behavioral Components The cognitive-behavioral view emphasizes the importance of the underlying assumptions and cognitive distortions at work in people with borderline personality disorder. Specifically, people with borderline personality tend to hold some or all of the following core beliefs:

- The world is dangerous and cruel
- I am helpless and vulnerable
- I am unacceptable
- My feelings will not be taken seriously

Freeman et al., 2004

These maladaptive core beliefs are typically accompanied by the predominance of dichotomous thinking, a cognitive distortion in which things are seen as entirely good or entirely bad (Veen & Arntz, 2000). As you can well imagine, maladaptive core beliefs combine with dichotomous thinking to pave the way for extreme interpretations of events, and dramatic, impulsive behavioral responses. For example, a woman who believes that her feelings will not be taken seriously (assumption) *and* feels that her romantic parter has lost all interest in her (dichotomous thinking) may feel that she has no choice but to injure herself in order to express her distress and test the strength of her romantic relationship.

In order to establish a productive working relationship with clients with borderline personality disorder, cognitive therapists often begin with a focus on concrete behavioral goals, such as reducing impulsive behavior and improving the client's coping skills, while remaining flexible when it comes to allotting therapy time to address

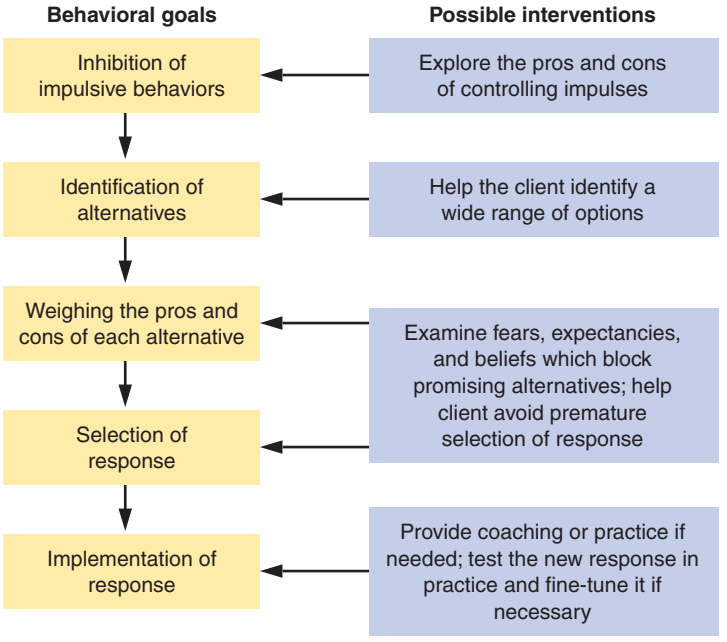


Figure 11.2 The impulse control process in the cognitive-behavioral treatment of borderline personality disorder Impulse control training in cognitive-behavioral interventions helps people with borderline personality disorder use a step-by-step process to choose thoughtful, effective, and adaptive responses to difficult situations, rather than engaging in damaging, impulsive behaviors.
Adapted from Freeman et al., 2004 (p. 254)

inevitable emotional crises. Although cognitive-behavioral therapies do not tend to focus on the interpersonal relationship between the therapist and client, an exception is made in the treatment of borderline personality disorder. Specifically, cognitive-behavioral therapists are quick to identify and address behaviors that interfere with the therapy itself such as poor attendance at sessions or failure to complete therapeutic homework assignments (Freeman et al., 2004).

Over time, cognitive interventions can be employed to help clients identify maladaptive or dysfunctional beliefs and replace them with more adaptive assumptions (Beck, Freeman, & Davis, 2004; Sperry, 1999). For example, the belief that the world is dangerous and cruel could potentially be replaced with the view that not everyone should be trusted, but that kind and caring people do exist. Similarly, dichotomous thoughts are challenged and replaced with more balanced and reasonable perspectives; "he's a worthless jerk!" might become "he disappointed me and I feel hurt." The identification of maladaptive assumptions and dichotomous thoughts allows for a more balanced approach to the selection of behavioral responses to challenging situations (see Figure 11.2).

Biological Components Researchers have found that some of the impulsive behaviors associated with borderline personality disorder may be related to low levels of the neurotransmitter serotonin (Paris et al., 2004). Serotonin also happens to be one of the major neurotransmitters implicated in depression (Chapter 5), which often co-occurs with borderline personality disorder and is often found in the first-degree relatives of people suffering from borderline pathology (Bellino et al., 2005). A wide range of medications—especially antidepressants that address serotonin deficiencies—can be used to manage some of the emotional symptoms associated with borderline personality disorder (Grossman, 2002; Koenigsberg, Woo-Ming, & Siever, 2002).

Dialectical Behavior Therapy

One of the most promising treatments for borderline personality disorder, dialectical behavioral therapy (DBT), was developed by Marsha Linehan, a psychologist at the University of Washington, Seattle. Consistent with the ***principle of multiple causality***, DBT recognizes that borderline personality disorder involves disturbances of thought, action,

emotion, and neurotransmission. Consequently, DBT interventions draw upon cognitive-behavioral, psychodynamic, biological, humanistic, and even Zen Buddhist principles. DBT focuses on the role of emotional dysregulation (resulting from childhood traumatization and emotional invalidation) in borderline personality disorder. As a result, DBT therapists are warmly validating of their clients' intense emotional experiences in keeping with humanistic approaches to psychotherapy, while using cognitive-behavioral techniques to help clients solve day-to-day problems effectively and better manage intense emotional experiences. Individual DBT sessions are complemented by group meetings in which clients focus on developing skills in four specific areas: improving attentional focus ("mindfulness" in Zen terms), increasing emotional control, improving interpersonal effectiveness, and tolerating distress. The skills-training component of DBT uses cognitive-behavioral principles as it aims to change how clients think about their experiences (accepting reality, challenging distorted cognitions about interpersonal interactions), while teaching new behaviors for dealing with emotional crises (self-soothing techniques, assertiveness training, and increasing opportunities for positive emotions).

DBT proceeds in a hierarchical fashion by addressing a series of "behavioral targets" (Kim & Goff, 2000). The therapist and client address the following behaviors in order: life-threatening behaviors, therapy-interfering behaviors, quality-of-life-interfering behaviors, behaviors related to posttraumatic stress reactions, and, finally, behaviors that interfere with self-respect and general quality of life. In keeping with behavioral models, clients complete homework assignments in which they record any harmful behaviors and develop a detailed analysis of the causes and effects of each incident of self-harm. They are also asked to identify the chain of events that precipitated the self-harm incident and to indicate points where they might have made more constructive choices. DBT clinicians are careful not to reinforce self-destructive behaviors: clients may telephone their therapists for support if they fear that they might cut themselves, but they are not to call if they have cut themselves already (Harvard Mental Health Letter, 2002). Sessions can also include psychodynamic exploration of long-standing emotional conflicts, but only after the client has become adept at using new emotional skills (often practiced in a group setting) to manage intense feelings. Medications are prescribed, as needed, to help clients who have persistent difficulties tolerating intense emotions. Box 11.2 illustrates several examples of the dialectical therapeutic method in action.

BOX 11.2
EXAMPLES OF DIALECTICAL BEHAVIOR THERAPY (DBT) INTERVENTIONS

- A patient is threatening suicide because her former husband had taken emergency custody of their children. The therapist discusses other ways to cope with the situation—[a process known as] solution analysis—while "validating" her shame and anger and at the same time pointing out that her husband is not being unreasonable. She has to learn that suicide threats are not the solution but the problem.
- A patient is admitted to a hospital emergency room when she cuts herself after sex with her boyfriend while thinking about a rape she suffered as an adolescent. She is angry at her boyfriend but afraid that if she speaks up she will lose him. The therapist discusses this and other incidents of self-mutilation and helps her learn to manage her anger and assert herself with her boyfriend. At this stage, the therapist avoids a detailed discussion of the rape, which might only arouse uncontrollable and therapeutically useless feelings.
- A patient was repeatedly beaten and sexually abused as a child, and is angry, frightened, and mistrustful. At the same time, she is ashamed of her anger and fear and convinced that others disdain her. She has not been doing her diary homework because of shame about her behavior. The therapist explains how childhood experience has made it difficult for her to take criticism, and they discuss ways to reduce her hypersensitivity.

From Harvard Mental Health Letter, 2002 (p. 2)

DBT appears to be highly effective with borderline personality disorder clients who have not improved through other forms of psychotherapy (Crits-Christoph & Barber, 2002; Koerner & Linehan, 2000). Studies comparing DBT with "treatment-as-usual" (conventional psychotherapy) have found that the participants who received DBT reported lower rates of self-mutilation, suicidal behavior, hopelessness, anxiety, depression, and expressed anger after three to six months of treatment (Bohus et al., 2004; Koons et al., 2001). The success of DBT has led clinicians to develop and implement DBT programs for people suffering from drug abuse, posttraumatic stress disorder, eating disorders, and other forms of psychopathology associated with poor emotion regulation.

Histrionic Personality Disorder

Histrionic personality disorder Personality traits involving excessive, superficial emotionality and attention seeking.

Histrionic personality disorder is characterized by a strong and constant need for attention and by superficial emotions. People with this disorder tend to engage others through flirtatiousness, self-dramatization, or an attention-grabbing appearance. While they may strive to be the "life of the party," they are often felt by others to be long on style but short on substance. Their engagement with their own emotions, other people, and the world has a superficial, impressionistic quality (Millon et al., 2004) (see Table 11.7).

CASE ILLUSTRATION

Kathy sought psychotherapy because she was very upset about the recent breakup of a romantic relationship. She explained to the therapist that her boyfriend seemed to lose interest in the relationship over time, and that this had happened repeatedly in other relationships. Despite the fact that Kathy was initially quite charming and engaging, her therapist soon noticed that her emotions had a superficial quality. Even when Kathy would weep throughout the entire session, he had the feeling that she cried merely to get sympathy. When pressed to explore the cause of her distress, Kathy's responses were usually vague and imprecise. She would say things like "it's so tragic—you know how men can be!" in a dramatic, even theatrical way, but she would then change the subject. Though Kathy had a number of acquaintances, she didn't really have any close friends. Her coworkers liked her but described her as "flashy and shallow" and found it difficult to develop a relationship with her that went beyond a surface friendship.

TABLE 11.7 Diagnostic Criteria for Histrionic Personality Disorder

A pervasive pattern of *excessive emotionality and attention-seeking,* beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

- Is uncomfortable in situations in which he or she is not the center of attention.
- Interaction with others is often characterized by inappropriate sexually seductive or provocative behavior.
- Displays rapidly shifting and shallow expression of emotion.
- Consistently uses physical appearance to draw attention to self.
- Has a style of speech that is excessively impressionistic and lacking in detail.
- Shows self-dramatization, theatricality, and exaggerated expression of emotion.
- Is suggestible, or easily influenced by others or circumstances.
- Considers relationships to be more intimate than they actually are.

Adapted from DSM-IV-TR (APA, 2000)

People with histrionic personality disorder will dramatize themselves (such as picking a loud fight or bursting into tears) in order to draw attention that may be focused elsewhere. When they do receive attention, they often interpret it as more intimate than it really is. Someone with histrionic personality disorder may claim to have numerous "best friends," all of whom see themselves as only casual friends. Histrionic emotions shift rapidly—from crying one moment to laughing hysterically the next—in a way that appears to be trite and artificial. Even feelings that seem to be intensely experienced often lack depth. For example, when asked for details about why his mother is the "most wonderful woman in the world," a histrionic man might explain "well, she is just superb!" People with this disorder are also easily influenced by others, as they can be quickly carried away by emotion and surface impressions.

Explaining and Treating Histrionic Personality Disorder

The psychodynamic and cognitive-behavioral perspectives on histrionic personality disorder provide different, but complementary, views on what causes histrionic behavior.

Psychodynamic Components As you may recall, Freud's initial work focused on *hysteria* (Chapter 2)—a disorder involving strange physical symptoms (such as the paralysis, pain, or loss of feeling) in the absence of any physical cause (Breuer & Freud, 1893). Freud concluded that these "hysterical" symptoms resulted from **repression** of emotional conflicts and the conversion of emotional tension into physical symptoms. Freud believed that the repressed emotions usually had to do with memories of premature sexual experiences or childhood sexual conflicts. Later psychodynamic theorists extended this explanation to account for hysterical personality traits such as those seen in histrionic personality disorder. They also noted that the emotional insecurity of these individuals, which leads to a craving for attention, is often rooted in insecure childhood attachments to their parents. Thus, from a modern psychodynamic perspective, conflicts about sexuality and insecurity in relationships with others are seen as central causes of histrionic personality disorder (Bartholomew, Kwong, & Hart, 2001).

While the flirtatious and seductive behavior of people with histrionic personality disorder expresses their sexual impulses and their desire for attention and security, the defense mechanism of repression keeps the individual from having to be aware of these "unacceptable" needs. Unfortunately, this extreme use of repression interferes with genuine feelings and contributes to the naive, shallow, and emotionally superficial traits associated with histrionic behavior. Psychodynamic interventions for histrionic personality disorder focus on the role of *transference* in the psychotherapeutic relationship. By paying close attention to the way in which a histrionic client engages with his or her therapist (such as being overly flirtatious, dramatic, or vague), the clinician can help the client to identify and understand the unconscious roots and function of the client's histrionic interpersonal style.

Cognitive-Behavioral Components Cognitive theorists suggest that people with histrionic personality disorder believe that they cannot care for themselves and must seek out attention, approval, and care from others (Beck, Freeman, & Davis, 2004). As a result, they engage in self-dramatizing behaviors in order to obtain the attention and concern they long for. People with histrionic personality disorder have a cognitive style that relies on vague impressions instead of precision, reason, and concrete facts. Accordingly, cognitive-behavioral therapists must often be patient, yet firm, when trying to hold histrionic clients to a therapeutic agenda or specific and concrete treatment goals. When they succeed in doing so, therapists can help histrionic clients to identify and revise distorted thoughts at the root of their dramatic and overly emotional behavior. Therapeutic goals usually focus on helping histrionic clients learn to identify what they want and ask for it directly rather than resorting to indirect and usually ineffective attention-seeking behaviors (Freeman, Freeman, & Rosenfield, 2005).

Too feminine? The character of Scarlet O'Hara, from *Gone with the Wind* (1939), displays the dramatic, yet emotionally superficial, qualities typically associated with histrionic personality disorder. Some critics have argued that the diagnosis of histrionic personality disorder pathologizes traits that have been considered, in certain times and places, to be the essence of appealing, feminine behavior.
Photofest

Repression A defense mechanism consisting of the forgetting of painful mental content.

CHAPTER 11

VISUAL ESSAY

Brain Processes Implicated in Reactive and Instrumental Aggression

Aggressive behaviors are observed across many disorders, including anxiety, depression, conduct disorder, and antisocial personality disorder. Aggressive acts can be characterized as *reactive* or *instrumental*, with each involving different brain structures and neurochemistry. Acts of reactive aggression are rarely goal-directed; they occur on impulse, usually in response to provocation, frustration, or threat. In contrast, acts of instrumental aggression are planned and goal-directed. Individuals with *antisocial personality disorder* and its frequent precursor, conduct disorder, often exhibit both types of aggression.

Neuroimaging and lesioning studies suggest that unique brain processes occur in reactive and instrumental aggression. The subcortical circuitry involved in reactive aggression includes the *amygdala*, *hypothalamus*, and the *periaqueductal gray* (PAG) (Gregg and Siegel, 2001). The *orbitofrontal cortex*, a cortical structure, also plays a role in reactive aggression. As noted above, frustration can trigger reactive aggression; the orbitofrontal cortex helps to determine whether a state of frustration is experienced (Rolls, 2000). When an expected reward has not been achieved, thus leading to frustration, the orbitofrontal cortex may increase neuronal activity and contribute to acts of reactive aggression. Neurotransmitters implicated in reactive aggression include serotonin and GABA. Individuals with low levels of serotonin have been found to be more aggressive; conversely, increased levels of GABA are associated with higher rates of aggression (Bell, Abrams, & Nutt, 2001). Not surprisingly, drugs known to activate GABA receptors, such as alcohol and benzodiazepines, often increase levels of aggression (Fish et al., 2001).

Less is known about the brain processes involved in instrumental aggression. Unlike reactive aggression, instrumental aggression appears to originate in cortical structures such as the *temporal lobe* and the *premotor cortex* and *striatum*, which are known to evaluate whether behavior will be rewarded or punished. The *amygdala* is also involved in instrumental aggression at the level of associative learning and memory. For instance, when individuals are punished for aggressive acts, they tend to associate aggression with punishment and to act less aggressively in the future (Blair, 2004). Some researchers speculate that individuals who exhibit psychopathic traits and rely on instrumental aggression may exhibit an amygdala dysfunction accounting for their lack of remorse and suppressed response to aversive stimuli (Blair, 2001). In other words, people with antisocial traits seem to be less bothered than most by the negative consequences typically associated with aggression. Accordingly, they do not learn to avoid aggressive behavior, and they do not feel expectable levels of discomfort when relying on instrumental aggression to pursue their goals. At present, the neurotransmitters involved in instrumental aggression are largely unknown. Noradrenaline, however, may be involved in the associative learning processes mediated by the amygdala.

Reactive aggression, like the road-rage depicted here, occurs in response to provocation, frustration, or threat. Neurological evidence indicates that the brain structures involved in reactive aggression include the amygdala, hypothalamus, periaqueductal gray, and orbitofrontal frontal cortex. The neurotransmitters serotonin and GABA may also play a role in reactive aggression.

Brain Structure/Region	Description
Hypothalamus 	The **hypothalamus** maintains the body's homeostasis with regard to autonomic nervous system processes, such as blood pressure, body temperature, and appetite. It releases various hormones related to growth (somatotropic hormone) and sexual development (gonadotropic hormone).
Periaqueductal Gray 	The **periaqueductal gray** is part of a midbrain structure known as the *tegmentum*. It is involved in species-survival behaviors, such as mating and fighting.
Orbitofrontal Cortex 	The **orbitofrontal cortex** is located just above the eye socket. This region is important for planning and impulse control.
Amygdala 	The **amygdala** is part of the limbic system located deep in the brain. It is involved in emotion perception, expression, fear, and memory.
	Some research suggests that antisocial tendencies involve an *amygdala* dysfunction. This dysfunction is hypothesized to be present early in development causing punishments for misbehavior that are normally experienced as highly aversive to be actually experienced as relatively mild. Thus, individuals with antisocial tendencies may fail to internalize societal norms for appropriate behavior and may act in self-serving ways regardless of the consequences.
Temporal Lobe 	The **temporal lobe** is located on both sides of the brain. It includes the auditory processing cortex and is involved in language comprehension and expression.
Premotor Cortex 	The **premotor cortex** is a strip of tissue located in front of the supplementary and primary motor cortex. The primary motor cortex is responsible for actual motor movement, while the premotor and supplementary cortex control the planning and sequencing of motor movement.
Corpus Striatum 	The **corpus striatum** is a pathway located deep in the brain. It includes the **caudate nucleus** and **putamen**, two components of the **basal ganglia**. These structures are involved in movement and homeostasis.

REACTIVE AGGRESSION

All of these brain structures are involved when an individual uses aggression in a reactive way. Reactive aggression is impulsive, poorly planned, and often due to feelings of frustration. Individuals with antisocial personality disorder and conduct disorder often exhibit reactive aggression.

INSTRUMENTAL AGGRESSION

All of these brain structures are involved when an individual uses aggression in an instrumental way. Instrumental aggression is typically goal-directed and planned. In the aftermath of exhibiting aggression, individuals with antisocial personality traits may show little remorse or emotional reaction.

Dissection by Shawn Miller; Photography by Mark Nielsen. © Mark Nielsen and Shawn Miller

Narcissus at the Fountain The term "narcissism" comes from the myth of Narcissus, a young man who became so enchanted by the beauty of his own reflection that the gods punished him with transformation into a flower that grows at the water's edge.

TABLE 11.8 Diagnostic Criteria for Narcissistic Personality Disorder

A pervasive pattern of *grandiosity (in fantasy or behavior), need for admiration, and lack of empathy for others,* beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

- Has a grandiose sense of self-importance (for example, exaggerates achievements and talents, expects to be recognized as superior without commensurate achievements).
- Is preoccupied with fantasies of unlimited success, power, brilliance, beauty, or ideal love.
- Believes that he or she is "special" and unique and can only be understood by, or should associate with, other special or high-status people (or institutions).
- Requires excessive admiration.
- Has a sense of entitlement: has unreasonable expectations of especially favorable treatment or automatic compliance with his or her expectations.
- Is interpersonally exploitative: takes advantage of others to achieve his or her own ends.
- Lacks empathy: is unwilling to recognize or identify with the feelings and needs of others.
- Is often envious of others or believes that others are envious of him or her.
- Shows arrogant, haughty behaviors or attitudes.

Adapted from DSM-IV-TR (APA, 2000)

Narcissistic Personality Disorder

Narcissistic personality disorder Personality traits involving extreme grandiosity, need for admiration, and lack of empathy.

Narcissistic personality disorder is characterized by a profound sense of entitlement and superiority with regard to others, which usually masks underlying problems with self-esteem (APA, 2000). People who are severely narcissistic feel jealous of other people's accomplishments, work to convince others that they are special or important, and are often quite offended when their "specialness" seems to go unnoticed. They expect to be treated favorably, even if such treatment comes at other people's expense. For example, a person with narcissistic personality disorder is likely to feel offended when given a "bad" table at a restaurant and may demand that the waiter make another party give up a preferred table. Because they are so focused on their own needs, people with narcissistic personality disorder usually disregard other people's feelings. They may cruelly "put down" other people or thoughtlessly boast about accomplishments. For example, one man with narcissistic personality disorder bragged about being admitted to a choice medical school every time he encountered someone he knew who had been rejected (see Table 11.8).

CASE ILLUSTRATION Monica, who works as a sales representative for a pharmaceutical company, is quite unhappy at work. Though she is very good at her job, she is painfully aware that she is not the top salesperson in her region. Monica makes frequent appointments with her boss to complain about her assignments, arguing that she is entitled to the best territory so that she can "blow everyone else away." When Monica's boss refused to assign her to a hospital where a colleague was achieving record sales, Monica stormed out of his office complaining enviously about the colleague and bad-mouthing her boss to anyone who would listen. Monica has some friends, but she has always had difficulty holding onto any one friend for very long.

Most people find Monica to be impressive when they first meet her, but after a while they tire of her constant preoccupation with herself and her own achievements and her minimal interest in other people. When friends do share news of their accomplishments with Monica, she often responds by pointing out how she has had a similar, but superior, personal success.

Explaining and Treating Narcissistic Personality Disorder

On the surface, narcissistic personality disorder may seem to be caused by an abundance of self-esteem. However, both the psychodynamic and cognitive-behavioral explanations of narcissistic personality disorder focus on how narcissistic traits typically result when people are unable to feel good about themselves in realistic and constructive ways.

Psychodynamic Components From a psychodynamic perspective, the vanity, arrogance, and self-centeredness associated with narcissistic personality disorder represent an effort to defensively counteract underlying feelings of inadequacy. For example, people with this disorder may have been emotionally neglected by their parents or valued mainly for their external qualities—what they accomplished, how they looked, or how their behavior reflected upon the family—rather than loved unconditionally. Under these conditions, they grow to feel that they are only appreciated for what they do, not for who they are (Kohut, 1977; Rinsley, 1989). Lorna Benjamin, a modern interpersonal theorist, argues that narcissism can also result from excessive indulgence by parents. Benjamin points out that indulgent parents may subtly convey the message: "we need to see you as fabulous and perfect because acknowledging your imperfections would make you impossible to love." In addition, parents who accommodate too readily to their children's wishes may raise children who don't think about other people's needs and feelings, leading to the kind of entitlement that characterizes narcissistic personality disorder (Benjamin, 1996). In other words, overindulged children may have a precarious sense of self-esteem and rely heavily on praise from others in order to feel good about themselves. Similarly, they may use relationships to enhance their self-esteem by constantly reminding others of their accomplishments or pointing out how they are superior to the people who surround them.

People with narcissistic personality disorder rely heavily on the defense mechanisms of **idealization** and **devaluation** (McWilliams, 1994). They tend to idealize themselves—to tell themselves and others that they are flawless and worthy of admiration—in order to ward off their own feelings of inferiority. People who are narcissistic also aim to bolster their self-esteem by associating with people and objects that can be idealized (Kohut, 1977). A narcissistic attorney might focus most of his energy on a celebrity client or insist that his car is the finest one available. In addition to idealizing themselves, narcissists must often defensively devalue others; people who fail to support their need to feel superior may be dismissed as "stupid" or "useless."

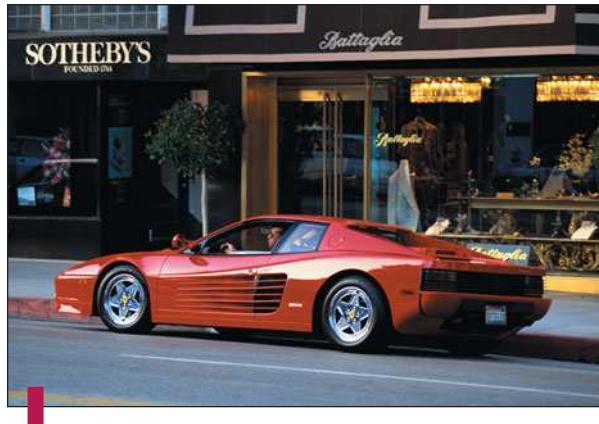
There are two major psychodynamic approaches to treating narcissistic personality disorder. Heinz Kohut (1977) believed that therapists should provide consistent empathy and be tolerant of clients' grandiosity in order to allow them to move forward developmentally. In contrast, Otto Kernberg (1989; 1998) stresses the importance of kind but consistent confrontation of the grandiose beliefs held by narcissistic clients. Psychodynamic therapists report that some narcissistic clients are best helped with "Kohutian" empathy, while others are served better served by "Kernbergian" confrontation (McWilliams, 1994).

Cognitive-Behavioral Components When individuals with narcissistic personality disorder seek therapy it is typically because they are experiencing painful symptoms (such as distress after the loss of a job), not because of concern about their personality

Only skin deep For people with narcissistic personality disorder, external sources of self-esteem, such as physical beauty, praise from others, or owning a fancy car, may be required to counteract feelings of inadequacy.
Andrew Lichenstein/The Image Works

Idealization A defense mechanism in which someone or something is seen as being perfect or wonderful in order to protect against negative feelings.

Devaluation A defense mechanism in which someone or something external is disparaged in order to protect against negative feelings about oneself.



The culture of narcissism In his 1978 book *The Culture of Narcissism*, Christopher Lasch argued that modern Western culture promotes narcissistic traits by valuing the individual above the group, and style over substance. The excesses of Beverly Hill's Rodeo Drive seem to support Lasch's view.
©Robert Landau/Corbis Images

traits, which are ego-syntonic. However, using cognitive and behavioral techniques to address the painful symptoms the client is experiencing often leads to a focus on the problematic personality traits. For example, a therapist might observe that the client's difficulties arise from a distorted view of himself as either completely superior or totally worthless. Aaron Beck demonstrates the cognitive approach with the following case example:

> *Scott, an investment broker terminated from his third firm, complained that "this shouldn't be happening to me. . ." He expected to be earning "at least" a $1 million salary, and he did not see that the complaints about his sexual harassment of employees should have anything to do with his lost positions. Scott accepted the idea that it probably was not in his best interest to constantly measure his potential against the past successes of others. More grudgingly, he explored the viability of expecting a $1 million contract with a "prestige" firm despite repeated (and well-substantiated) claims of sexual harassment and other unprofessional conduct. Most difficult but crucial was exploration of the meaning of his expected success and modifying the beliefs about the worthlessness of alternative goals.*
>
> *Beck, Freeman, & Davis, 2004 (p. 261)*

The distorted *cognitive schema* behind Scott's distress (a belief that one is totally worthless unless recognized as absolutely superior) is a cognitive pattern associated with narcissistic problems. Cognitive-behavioral interventions focus on helping clients to alter maladaptive schemas and take a more realistic view of themselves and others (Young & Flanagan, 1998).

CLUSTER C: ANXIOUS OR FEARFUL PERSONALITY DISORDERS

Avoidant Personality Disorder

Avoidant personality disorder Personality traits involving social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation.

Avoidant personality disorder can be thought of as shyness taken to a pathological extreme. People with avoidant personality disorder are usually extremely tense in social situations and convinced that they will be seen as inadequate. As a result, they avoid new or unpredictable social situations and may only socialize when they can be ensured that they will be liked. Considering that it is quite difficult to *guarantee* anyone that he or she will be liked by others, it is easy to imagine how such a prerequisite for social interaction could significantly interfere with one's functioning (see Table 11.9).

CASE ILLUSTRATION

From early childhood, Claire has been described by her family as "painfully shy." In elementary school she would watch her classmates play while she stood at the edge of the playground. While it was clear that she longed to join in the daily games, Claire felt sure that her classmates did not like her and thought she was a "dork." Encouragement from her teachers and invitations to birthday parties did not help Claire to feel more confident about making friends. Claire found some relief from her social difficulties by throwing herself into her schoolwork when she reached high school. She achieved extremely high grades and scored well on her college entrance exams. Claire and her parents were pleased with her academic achievement, but Claire also felt that her academic ability simply affirmed her reputation as a "geeky girl with no friends." When it came time to apply to college, Claire decided that she would prefer to attend a trade school where she could learn secretarial skills while living at home with her parents. When asked about her reluctance to attend college, Claire explained that she was worried that her professors would think that she had nothing of substance to offer in class, and her classmates and potential friends

TABLE 11.9 Diagnostic Criteria for Avoidant Personality Disorder

A pervasive pattern of *social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation,* beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:

- Avoids occupational activities that involve significant interpersonal contact due to fears of criticism, disapproval, or rejection.
- Is unwilling to get involved with people unless certain of being liked.
- Shows restraint within intimate relationships because of the fear of being shamed or ridiculed.
- Is preoccupied with being criticized or rejected in social situations.
- Is inhibited in new interpersonal situations because of feelings of inadequacy.
- Views self as socially inept, personally unappealing, or inferior to others.
- Is unusually reluctant to take personal risks or to engage in any new activities because they may prove embarrassing.

Adapted from DSM-IV-TR (APA, 2000)

would find her boring. Though Claire tended to focus on her academic concerns, her parents also knew that she was worried about what it would be like to move away from home and live in a dorm. Even though Claire had managed to develop a few superficial friendships in high school, she continued to feel that she could not make friends and would perceive even the most minor interactions (such as a friend saying that she already had plans for a coming weekend) as proof that others disliked her.

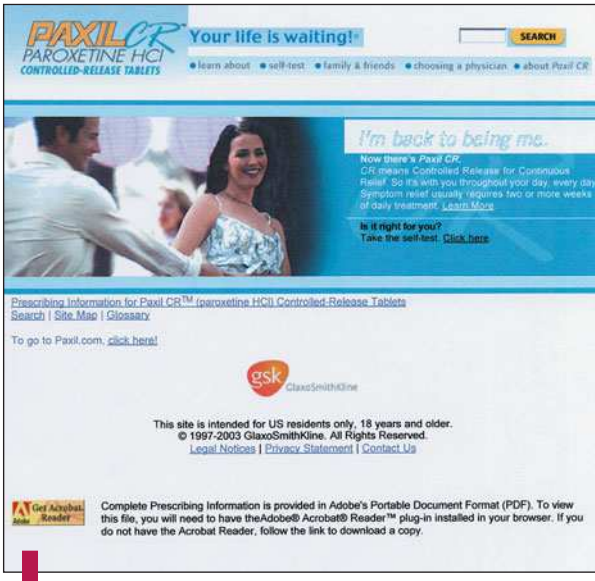
People with avoidant personality disorder are often "loners," but, unlike people with schizoid personality disorder, they strongly desire relationships with others and yet are convinced that they will be rejected or disliked. They are frightened of taking the risks necessary to develop new friendships and are preoccupied with how they might potentially embarrass or humiliate themselves. The withdrawal from social relationships in avoidant personality disorder means that people with this disorder do not have many opportunities to develop the social skills necessary to facilitate friendships. For the person with avoidant personality disorder, the failure to make a new friend on the first try is usually perceived as proof of social inadequacy and can lead to further social withdrawal.

Avoidant personality disorder differs from social phobia (Chapter 4) because the former is pervasive and chronic. People who suffer from social phobia feel anxious in circumscribed social situations such as eating in public or giving a speech. In contrast, people with avoidant personality disorder feel anxious and inadequate in almost all social situations over many years and can engage in interpersonal intimacy only when they feel assured of uncritical acceptance (APA, 2000).

Explaining and Treating Avoidant Personality Disorder

The psychodynamic perspective on avoidant personality disorder focuses on how childhood experiences can lead to lasting interpersonal anxiety, while the cognitive-behavioral approach focuses on the thought processes that perpetuate and reinforce social avoidance. The biological perspective adds an understanding that some people can be born with a predisposition to extreme shyness.

Psychodynamic Components The psychodynamic perspective focuses on the developmental roots of avoidant personality disorder—specifically, painful childhood experiences



Treating the biology of avoidance
Pharmaceutical companies use marketing campaigns to encourage consumers to consider medications that treat personality traits of shyness and avoidance.
Bill Aron/PhotoEdit

involving extreme shame. For example, individuals with avoidant personality disorder may have been excessively shamed by their parents during childhood or adolescence (Gabbard, 2000). As a result, they tend to assume that their vulnerabilities will be pointed out by others, and they shun contact with unfamiliar people or situations in order to minimize the chances of being rejected (Millon & Davis, 2000). People with avoidant personality traits may rely heavily on the defense mechanisms of *withdrawal* and **escape into fantasy**—imagining that they will be completely accepted or revered by others, or that they might be able to self-assuredly defend themselves against any criticism (Millon & Davis, 2000). They often have difficulty engaging in psychotherapy because of intense concerns about how they are seen by others. As a result, clinicians working with them must be carefully attuned to the clients' anxieties about the psychotherapy situation itself. Clinicians must also pay special attention to gradually developing a trusting therapeutic relationship in which the roots of the client's social anxieties can be understood (Gabbard, 2000).

Escape into fantasy A defense mechanism in which an individual avoids unpleasant feelings by focusing on pleasant daydreams.

Dependent personality disorder Personality traits involving submissive and clinging behavior related to an excessive need to be cared for by others.

Cognitive-Behavioral Components As described previously, people with avoidant personality disorder assume that they will be criticized and rejected by others. Like people with paranoid traits, people who are avoidant scan their environment and attend to minute details, selectively attending to those details that fit their negative assumptions (Millon & Davis, 2000). Cognitive-behavioral interventions help people with avoidant personality disorder pay attention to the disconfirming (that is, positive) feedback that they tend to ignore. In addition, therapists help their clients develop coping skills for managing the painful emotions (such as fear of rejection) that perpetuate avoidant behavior (Overholser, 2002). For example, a cognitive-behavioral therapist might challenge her client's assumption that rejection is intolerably painful and should be avoided at all costs. Group therapy can also be an effective way for people with avoidant personality to gather more accurate "data" about how they are perceived in social situations and to boost their confidence about seeking out new social situations (Heimberg & Becker, 2002).

Biological Components Biological investigations of avoidant personality disorder have focused on the role of a particular *temperament* in the development of the disorder. Babies who tend to withdraw from new experiences and adapt slowly to change are categorized as having "slow-to-warm-up" temperaments. Interestingly, the "slow-to-warm-up" temperament has been associated with intense shyness in childhood and avoidant personality disorder in adulthood (Kernberg,Weiner, & Bardenstein, 2000). Antidepressant medications can be used to minimize some of the depressive and anxiety symptoms often associated with avoidant personality disorder and may make it possible for people with the disorder to make better use of psychotherapy (Koenigsberg, Woo-Ming, & Siever, 2002).

Dependent Personality Disorder

People with **dependent personality disorder** feel that they cannot care for themselves, make decisions, or take responsibility for everyday aspects of their own lives. They depend on others for help with everything, from the most minor decisions such as where to go to lunch to major life choices such as the type of career to pursue. Like Beth (described at the beginning of the chapter) people with dependent personality disorder rely almost entirely on others even though they are, in fact, capable adults (see Table 11.10).

CASE ILLUSTRATION William, 32, sought therapy because he was extremely distraught after being left by his wife of 10 years. Though William makes a comfortable living as a systems analyst at a large company, he is extremely worried that he won't be able to care for himself now that his wife is gone, and he pleaded with her not to divorce him. Indeed, he had relied on her to make or approve of most of the major

TABLE 11.10 Diagnostic Criteria for Dependent Personality Disorder

A *pervasive and excessive need to be taken care of that leads to submissive and clinging behavior and fears of separation,* beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

- Has difficulty making everyday decisions without an excessive amount of advice and reassurance from others.
- Needs others to assume responsibility for most major areas of his or her life.
- Has difficulty expressing disagreement with others because of unrealistic fears of retribution, or loss of support or approval.
- Has difficulty initiating projects or doing things on his or her own (because of a lack of self-confidence in judgment or abilities rather than a lack of motivation or energy).
- Goes to excessive lengths to obtain nurturance and support from others, to the point of volunteering to do things that are unpleasant.
- Feels uncomfortable or helpless when alone because of exaggerated fears of being unable to care for himself or herself.
- Urgently seeks another relationship as a source of care and support when a close relationship ends.
- Is unrealistically preoccupied with fears of being left to take care of himself or herself.

Adapted from DSM-IV-TR (APA, 2000)

decisions in his life, from what tie to wear each day to whether he should ask for a promotion at work. William's wife tired of his lack of independence and encouraged him, to no avail, to do things on his own. Interestingly, William's boss has told William many of the same things that William heard from his wife. In the annual evaluations of William's work performance, his boss has noted that William is overly hesitant and cautious when making routine decisions, and that he tends to go from colleague to colleague asking advice, even in familiar situations where he has been successful in the past.

Clearly, William possesses the intelligence, education, and physical ability to take charge of his own life, yet he is dogged by the feeling that he cannot care for himself or make decisions on his own. Like William, people with dependent personality disorder are clingy and needy in their relationships with others and worry excessively about what will happen if they are left to care for themselves. They often feel devastated and terrified when a close relationship ends, and they actively seek another care-taking relationship to take its place. In some cases, people with this disorder allow others to take advantage of them, or even volunteer to do unpleasant tasks (such as cleaning a friend's home) in order to maintain what feels like a desperately needed care-taking relationship (APA, 2000).

Explaining and Treating Dependent Personality Disorder

Both cognitive-behavioral and psychodynamic explanations of dependent personality disorder focus on the role of childhood experiences. The cognitive-behavioral perspective suggests that lifelong patterns of extreme neediness might emerge from the early reinforcement of dependent behavior, while the psychodynamic approach focuses on various ways in which parent-child relationships can lead to excessive dependence.

Comic relief In the 1991 movie *What About Bob?* Bill Murray provides a humorous portrait of a man with such intense dependency needs that he exhausts, annoys, and ultimately maddens his psychiatrist (played by Richard Dreyfuss) by following him on a family vacation.
Touchstone/The Kobal Collection/The Picture Desk

Research also suggests that the "slow-to-warm-up" temperament (described earlier) that contributes to avoidant personality disorder is also a risk factor for dependent personality disorder.

Psychodynamic Components Early psychodynamic theorists hypothesized that dependent personality traits resulted from fixation at the oral stage of psychosexual development (Fenichel, 1945). Children who were either overindulged or who were not sufficiently gratified during the oral stage were thought likely to become adults who were preoccupied with being nurtured and cared for by others. Contemporary psychodynamic ideas about dependency are more complex. For example, the **regression** (reversion to earlier, childlike behavior) seen in people with dependent personality disorder can be a defense mechanism protecting the individual from anxieties associated with independent, adult roles. In other cases, individuals may have developed fears of being unable to care for themselves because of *identifications* with parents who seemed dependent or helpless. A dependent person may also believe that a relationship is a loving one only if his or her partner agrees to take over most of the decisions and responsibilities. Finally, the defense mechanism of *idealization* is common among people with dependent personality disorder (Millon & Davis, 2000). The people who are depended upon may be seen as all-knowing and all-powerful, similar to the way that many young children view their parents.

Regression A defense mechanism that involves a return to childlike behavior in order to avoid anxieties associated with progressive development.

Obsessive-compulsive personality disorder Personality traits involving preoccupation with orderliness, perfectionism, and control at the expense of spontaneity, flexibility, and enjoyment.

The psychodynamic concept of transference is especially important in the treatment of dependent personality disorder. For example, a client with dependent personality disorder may look to the therapist to give him or her all the answers about how to save the client's marriage. When these typical feelings, thoughts, and interaction patterns are brought into the relationship with the therapist, the client and therapist can work together to try to understand and change the client's inappropriate expectations (Bornstein, 2005). The therapist will also address these problematic patterns as they appear in other relationships described by the client.

Cognitive-Behavioral Components People with dependent personality disorder feel that they are helpless and inadequate in spite of ample evidence to the contrary. Research indicates that highly dependent behavior can arise from family environments where parents undermine their children's independent and assertive behaviors while promoting needy, clinging behavior (Baker, Capron, & Azorlosa, 1996). Cognitive-behavioral interventions challenge dependent clients' deeply entrenched, but distorted, beliefs that they are unable to care for themselves and create opportunities for clients to function independently (Bornstein, 2004; Overholser, 1997). Even small steps in the direction of autonomy (such as a client's successful execution of a therapeutic homework assignment to buy groceries without soliciting advice) provide concrete proof that clients are not nearly as helpless and ineffectual as they believe themselves to be. Cognitive-behavioral interventions for dependent personality disorder also focus on assertiveness training. Assertive behaviors are modeled and practiced, with the aim of helping people to develop a broader array of behaviors for meeting their own needs (Sperry, 1999). Often, the results of the newly assertive behaviors are inherently rewarding (such as getting more of what one wants), but clients may also be encouraged to find additional ways to reward themselves for taking risks and striving to be more independent.

Obsessive-Compulsive Personality Disorder

People with **obsessive-compulsive personality disorder** have an extreme need for order and control. Typically, they rigidly adhere to what they believe to be the "right" way to conduct themselves—even to the degree of missing the point of an activity or taking

TABLE 11.11 Diagnostic Criteria for Obsessive-Compulsive Personality Disorder

A pervasive pattern of *preoccupation with orderliness, perfectionism, and mental and interpersonal control,* at the expense of flexibility, openness, and efficiency, beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:

- Is preoccupied with details, rules, lists, order, organization, or schedules to the extent that the major point of the activity is lost.
- Shows perfectionism that interferes with task completion (for example, is unable to complete a project because his or her own overly strict standards are not met).
- Is excessively devoted to work and productivity to the exclusion of leisure activities and friendships (not accounted for by obvious economic necessity).
- Is overconscientious, scrupulous, and inflexible about matters of morality, ethics, or values (not accounted for by cultural or religious identification).
- Is unable to discard worn-out or worthless objects even when they have no sentimental value.
- Is reluctant to delegate tasks or to work with others unless they submit to exactly his or her way of doing things.
- Adopts a miserly spending style toward both self and others; money is viewed as something to be hoarded for future catastrophes.
- Shows rigidity and stubbornness.

Adapted from DSM-IV-TR (APA, 2000)

the pleasure out of leisure. For example, an obsessive-compulsive boss might insist that all of her employees arrive at the company picnic on time so that they do not disrupt her schedule of "fun" activities (tug-of-war from 10:00–10:20, touch football from 10:20–11:00, etc.). Another person with this disorder may make a habit of turning projects in late because he cannot let go of the work until it seems to be "perfect." Perfectionism and procrastination are common problems in such individuals (see Table 11.11).

CASE ILLUSTRATION

Natalie is a supervisor at a company that distributes cleaning supplies. The person who works directly below her just quit her job after only four months, and the person who held the spot before that quit after only three weeks. Neither employee could stand Natalie's exacting and seemingly meaningless guidelines for how work had to be done. For example, Natalie was preoccupied with the company's regulations and would insist that those who worked for her provide proof of illness if they called in sick. She made detailed lists that specified how every task had to be done, down to the correct procedure for making coffee in the company lounge. Natalie is at her office for long hours each day, making sure that her work is "perfect" and keeping a close eye on the quality of the work done by her subordinates. Little time is left over for a social life, which has contributed to Natalie's difficulties in finding and maintaining a romantic relationship. Several months ago Natalie started to date a man whom she liked very much. Though their relationship got off to a good start, he soon started to feel that Natalie was "bossy" and "rigid." For example, she refused to stay out late on weekend evenings because it would disrupt her strict sleep schedule. Similarly, her friends and family had complained for years that Natalie's inflexibility made it difficult to enjoy time with her.

People with obsessive-compulsive personality disorder can be highly productive, but they are unable to relax. They are often difficult colleagues, friends, or family members as they typically insist on doing everything their way and have a hard time acting as a member of a group or team. In addition to their rigid approach to work and play, obsessive-compulsive people also tend to be "pack rats." They hoard possessions, even those that have no sentimental value (such as old magazines or broken appliances), with the idea that the object might somehow be useful in the future (APA, 2000). Similarly, they are often reluctant to spend money and are frequently perceived as "stingy."

Obsessive-compulsive personality disorder differs from obsessive-compulsive *anxiety* disorder (Chapter 4) in several ways. First, the personality disorder is pervasive and chronic, reflecting traits rather than specific symptoms of compulsive rituals and/or obsessional thoughts. Second, while some people with obsessive-compulsive personality disorder may see their need for control as excessive, usually the obsessive-compulsive traits are not distressing to the person who has them and may, in fact, be highly valued (ego-syntonic) personal qualities. Typically, people with obsessive-compulsive personality disorder pride themselves on being highly organized perfectionists without being aware of how their rigid and controlling behavior affects others. It is possible for a person to have both obsessive-compulsive personality disorder *and* obsessive-compulsive anxiety disorder, but this is not always the case.

Explaining and Treating Obsessive-Compulsive Personality Disorder

People often refer to their own or their friends' obsessive-compulsive traits as "anal." We'll explore the meaning behind this strange, if familiar, psychodynamic term and then consider the cognitive and behavioral mechanisms that perpetuate obsessive-compulsive traits.

Psychodynamic Components Early psychodynamic explanations for obsessive-compulsive personality disorder focused on fixation at a particular childhood psychosexual stage—in this case the anal stage of development (Freud, 1913). Taken to an extreme, many of the developmental tasks of the toilet-training period, such as staying clean and learning self-control, resemble obsessive-compulsive traits. Fixation at or regression to the anal stage, possibly related to parenting that was overly controlling, anxious, or punitive concerning childhood messes, is still considered relevant to the development of obsessive-compulsive personality disorder (McWilliams, 1994). However, contemporary psychodynamic thinking about this disorder emphasizes the maladaptive use of three defense mechanisms: *reaction formation, undoing,* and *isolation of affect* (Gabbard, 2000).

Reaction formation A defense mechanism in which an unwanted impulse or emotion is turned into its opposite.

Undoing A defense mechanism in which one action or thought is used to "cancel out" another action or thought.

Isolation of affect A defense mechanism in which thoughts occur without associated feelings.

In **reaction formation**, a person turns an unacceptable impulse into its opposite to make it more acceptable. In obsessive-compulsive traits, the wish to make a mess causes anxiety, leading to its opposite: excessive organization and tight control. The defense mechanism of **undoing** refers to the use of symbolic rituals to magically counteract unacceptable feelings. For instance, a physician struggling with extreme guilt about his sexual desires ritually straightened up every desk that he came across in the hospital. Undoing is related to the compulsive traits of obsessive-compulsive personality disorder. **Isolation of affect** refers to the separation of thought and emotions in order to distance oneself from painful feelings. The use of this defense mechanism is responsible for the hyperrational, emotionless tendencies in obsessive-compulsive personality disorder. All of these defense mechanisms and traits have in common an effort to achieve emotional and interpersonal control, which is the hallmark of this personality disorder. Psychodynamic interventions for obsessive-compulsive personality disorder focus on developing more adaptive means of managing the emotions that are warded off by reaction formation, undoing, and isolation of affect.

Cognitive-Behavioral Components The cognitive style of people with obsessive-compulsive traits can be summed up by the familiar expression "missing the forest for the trees." In other words, a person with obsessive-compulsive personality disorder is likely to focus on details or rules to the extent that the relevance of an activity is lost. Cognitive-behavioral interventions address the irrationality of this cognitive style. For example, an obsessive-compulsive client may start to question his desire to meticulously review every minor decision once it is pointed out to him how his constant ruminations actually get in the way of goals he has set for himself (Freeman et al., 2004). Because they are so oriented toward rational analysis, clients with obsessive-compulsive personality disorder easily embrace the cognitive technique of examining and evaluating the evidence for their assumptions (Box 11.3 summarizes the current research of treating personality disorders). Obsessive-compulsive clients may also be asked to engage in behavioral experiments that address maladaptive assumptions, such as the idea that productivity is more important than pleasure. Beck, Freeman, & Davis (2004) provide the following example:

> *It is often useful to conduct a behavioral experiment with OCPD patients. For example, instead of directly trying to dispute a certain belief held by a compulsive, the therapist can take a neutral, experimental attitude toward it. Thus if a compulsive individual claims not to have time to relax during the day, the therapist may suggest an experiment to test this claim. The patient may*

Uncontrolled clinical reports Descriptive case studies of individual treatments.

Single-case design Studies that evaluate individual treatments but utilize standardized research measures.

Controlled outcome research Studies that systematically examine groups of clients being treated for the same disorder.

BOX 11.3 Psychotherapy Outcome Studies

EVALUATING THE TREATMENT OF PERSONALITY DISORDERS

Because the personality disorders are ego-syntonic, lifelong patterns of behavior, clinicians have traditionally been cautions about the effectiveness of psychotherapy. Although medications (such as anxiolytics or antidepressants) are sometimes helpful in the treatment of personality disorders, they are mainly prescribed to manage emotional symptoms associated with personality disorders, not to modify personality traits.

In a challenge to the traditional view, recent research indicates that both psychodynamic and cognitive-behavioral treatments can be very helpful for some personality disordered clients. Most psychotherapy outcome studies fall into one of three categories: *uncontrolled clinical reports, single-case design* studies, and *controlled outcome* studies. **Uncontrolled clinical reports** are descriptive case studies of individual treatments. **Single-case design** studies also evaluate individual treatments but use standardized research measures. **Controlled outcome research** systematically examines groups of clients being treated for the same disorder, ideally in comparison to a control group not receiving treatment. Single-case design and controlled outcome studies have found that psychodynamic psychotherapy can be an effective form of treatment for avoidant, obsessive-compulsive, and borderline personality disorders (Barber et al., 1997; Bateman & Fonagy, 2001; Stevenson & Meares, 1999). While uncontrolled clinical reports suggest that psychodynamic interventions can also be helpful for people suffering from other personality disorders (Jorstad, 2001; Roth & Fonagy, 2005), controlled outcome studies have not fully confirmed this (Crits-Christoph & Barber, 2002). However, a recently published controlled outcome study found that both psychodynamic and cognitive-behavioral treatments are effective in the treatment of Cluster C personality disorders (Svartberg, Stiles, & Seltzer, 2004).

Efforts to compare personality disorder treatment results across a large number of studies (an approach known as *meta-analysis*) have been hindered by varying definitions of personality pathology, the frequent comorbidity of Axis I and Axis II disorders, and poorly defined treatment approaches (Bateman & Fonagy, 2000; Leichsenring & Leibing, 2003). However, experts in the area of evaluating the treatment of personality disorders offer the following preliminary summary of what the current research indicates:

- There is evidence for the effectiveness of psychotherapy for the treatment of personality disorders. Most evidence supports long-term cognitive-behavioral and psychodynamic approaches with Cluster B patients.
- Treatments need to be well-structured and packaged, to have a clear focus, to be theoretically coherent, and to be well integrated with other services.
- Inpatient, day patient, and outpatient treatment have been shown to be useful. Inpatient treatment should be reserved for patients showing substance misuse, severe suicide risk, a forensic history, and difficulties in reality testing, and for those who have failed in repeated short-term hospital admissions or outpatient interventions.

Bateman & Fonagy, 2000 (p. 143)

compare productivity on days when he uses relaxation techniques in contrast to the days when he does not. Compulsives tend to value pleasure much less than productivity. It is often therapeutic to help them become aware of this and to evaluate with them the assumptions behind their value system concerning the place of pleasure in their lives.

Beck, Freeman, & Davis, 2004 (p. 335)

Tables 11.12, 11.13, and 11.14 summarize the psychodynamic, cognitive-behavioral, and biological components of the personality disorders.

BRIEF SUMMARY

- The 10 DSM-IV-TR personality disorders are organized into three groups: Cluster A includes three personality disorders characterized by odd or eccentric behavior; Cluster B includes four personality disorders characterized by dramatic, emotional, or highly erratic behavior; and Cluster C includes three personality disorders characterized by anxious or fearful behavior.
- Cluster A
  - Paranoid personality disorder involves a pattern of distrust and suspiciousness such that others' motives are interpreted as malevolent.
  - Schizoid personality disorder is characterized by detachment from social relationships and a restricted range of emotional expression.
  - Schizotypal personality disorder involves a pattern of acute discomfort in close relationships, cognitive or perceptual distortions, and eccentricities of behavior.

TABLE 11.12 Psychodynamic Components of Personality Disorders

PERSONALITY DISORDER	CHILDHOOD EXPERIENCES	PROMINENT DEFENSE MECHANISMS
Paranoid	• Humiliation, criticism, and ridicule	• Projection
Schizoid	• Difficult early attachments	• Withdrawal
	• Ambiguous or perplexing parental communications	• Intellectualization
Schizotypal	• No identified pattern	• Magical thinking
Antisocial	• Emotionally turbulent families; cruel and abusive parenting	• Identification with the aggressor
Borderline	• Inconsistent, unempathic parenting; chaotic or abusive environments	• Splitting
Histrionic	• Premature sexual experiences	• Repression
	• Inattentive parenting	
Narcissistic	• Valued for external qualities	• Idealization
	• Neglected or highly indulged	• Devaluation
Avoidant	• Painful interactions involving shame and anxiety	• Withdrawal • Escape into fantasy
Dependent	• Fixation at the oral phase	• Regression
	• Belief that relationship is a loving one only if partner takes over decisions and responsibilities	• Idealization
Obsessive-compulsive	• Fixation at the anal phase related to overly controlling, anxious, or punitive parenting concerning childhood messes	• Reaction formation • Undoing • Isolation of affect

TABLE 11.13 Cognitive-Behavioral Components of Personality Disorders

PERSONALITY DISORDER	VIEW OF SELF	VIEW OF OTHERS	BASIC BELIEFS	OVERDEVELOPED BEHAVIORAL STRATEGIES	UNDERDEVELOPED BEHAVIORAL STRATEGIES
Paranoid	Righteous Innocent Vulnerable	Interfering Malicious Discriminatory	People are potential enemies.	Vigilance Mistrust Suspiciousness	Serenity Trust Acceptance
Schizoid	Self-sufficient Loner	Intrusive	I need plenty of space.	Autonomy Isolation	Intimacy Reciprocity
Schizotypal	Estranged	Dangerous Confusing	People are perplexing and strange.	Isolation	Reciprocity Social sensitivity
Antisocial	Loner Autonomous Strong	Vulnerable Exploitative	People are there to be taken advantage of.	Combativeness Exploitativeness Predation	Empathy Reciprocity Social sensitivity
Borderline	Unstable Empty	Ideal Worthless	I must feel close to someone.	Manipulation Acting out (drinking, spending, etc.)	Self-soothing Patience Modulated reactions
Histrionic	Glamorous Impressive	Seducible Receptive Admirers	I need to impress.	Exhibitionism Expressiveness Impressionism	Reflectiveness Control
Narcissistic	Special Unique Superior	Inferior Admirers	I am special.	Self-aggran-dizement Competitiveness	Sharing Group identification
Avoidant	Vulnerable Socially inept Incompetent	Critical Demeaning Superior	I may get hurt.	Social vulnerability Avoidance Inhibition	Self-assertion Gregariousness
Dependent	Needy Weak Helpless Incompetent	Nurturant Supportive Competent	I am helpless.	Help seeking Clinging	Self-sufficiency Mobility
Obsessive-compulsive	Responsible Fastidious Competent	Irresponsible Casual Incompetent	Errors are bad. I must not err.	Control Responsibility Systematization	Spontaneity Playfulness

Condensed from Millon & Davis, 2000; Beck, Freeman, & Davis, 2004 (pp. 48–49)

TABLE 11.14 Biological Components of Some Personality Disorders

PERSONALITY DISORDER	BIOLOGICAL COMPONENT
Schizoid	• "Difficult" temperament
Schizotypal	• Enlarged left frontal lobe ventricles
	• Various neurotransmitter abnormalities
Antisocial	• Diminished anxiety reactions
	• Prenatal drug exposure
	• Reduced prefrontal gray and white matter volume
Borderline	• Low serotonin levels
Avoidant	• "Slow-to-warm-up" temperament
Dependent	• "Slow-to-warm-up" temperament

- Cluster B
  - Antisocial personality disorder is characterized by disregard for, and violation of, the rights of others.
  - Borderline personality disorder involves a pattern of instability in interpersonal relationships, self-image, emotions, and marked impulsivity.
  - Histrionic personality disorder is marked by excessive emotionality and attention-seeking.
  - Narcissistic personality disorder involves chronic and extreme grandiosity, need for admiration, and lack of empathy.
- Cluster C
  - Avoidant personality disorder involves a pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation.
  - Dependent personality disorder is characterized by submissive and clinging behavior related to an excessive need to be taken care of.
  - Obsessive-compulsive personality disorder is characterized by preoccupation with orderliness, perfectionism, and control.

Classification in Demographic Context

Demographic factors such as age, gender, and social class are highly relevant in the epidemiology of personality disorders. As you will see, there is also a significant risk of class and gender bias in diagnosing personality disorders.

Age

Just a phase? Extreme traits and behaviors are common in adolescence, so that clinicians usually defer the diagnosis of a personality disorder until after age 18.
Rudi Von Briel/PhotoEdit

Personality disorders are rarely diagnosed in children or teenagers, even in cases where such a diagnosis might appear to be warranted. While experts differ about when personality becomes fully developed, most agree that personalities are in flux during childhood and adolescence. Since the personality disorder diagnoses assume that personality has become fixed and rigid, the DSM-IV-TR criteria include the stipulation that an individual must be over 18 to be diagnosed with a personality disorder. To illustrate, consider that the trait of narcissism (need for admiration, preoccupation with the self, fixation on status) is quite common among adolescents, but this is a normal developmental phenomenon, and by adulthood less than 1% of the population meet the criteria for narcissistic personality disorder (APA, 2000). Similarly, many adolescents experience identity crises and experiment with behaviors associated with borderline personality disorder (for example, self-injury, binge drinking, and sexual promiscuity), but these behaviors in adolescence are not necessarily precursors of personality pathology in adulthood (Geiger & Crick, 2001).

Many adults with personality disorders, however, have exhibited traits associated with their disorder throughout their lifetime. Among the Cluster A disorders (paranoid, schizoid, and schizotypal personality disorders) social anxiety, hypersensitivity to others, and poor peer relations are common childhood traits (APA, 2000). As already noted, extreme shyness in childhood is common among people who later develop avoidant personality disorder (Kernberg,Weiner, & Bardenstein, 2000), though not all shy children go on to become avoidant. Antisocial personality disorder is frequently heralded by *oppositional defiant disorder* and/or *conduct disorder* during childhood (Lahey et al., 2005), diagnoses involving hostile and delinquent behaviors in children and adolescents (Chapter 13). Interestingly, it has been widely established that antisocial behavior often decreases as individuals become middle-aged (Zweig & Agronin, 2006). Experts in the area of antisocial personality now distinguish between two

developmental trajectories for antisocial behavior: "life-course-persistent" antisocial behavior that begins in childhood and continues throughout adulthood, and "adolescence limited" antisocial behavior that starts in early adolescence, but dies down in young adulthood (Aguilar et al., 2000). Life-course-persistent antisocial behavior is generally associated with genetic factors and adverse family circumstances, while adolescent-limited antisocial behavior seems to occur in response to social processes such as peer group influences (Moffitt, 2006).

Gender

One of the major controversies in the field of psychopathology centers on the issue of gender bias in the diagnosis of personality disorders. Since personality disorders describe extreme and maladaptive versions of everyday traits, it is not surprising that the personality disorders diagnosed more commonly in women (histrionic, borderline, and dependent personality disorders) involve extremes of stereotypically feminine traits (for example, emotionality and dependence), just as the disorders more commonly diagnosed in men (paranoid, schizoid, schizotypal, antisocial, narcissistic, and obsessive-compulsive) involve extremes of stereotypically masculine traits (such as emotional withdrawal, aggression, and control) (Widiger & Costa, 1994). However, some researchers have suggested that a significant gender bias influences the diagnosis of personality disorders (Caplan, 1991; Walker, 1994). For example, several studies have found that clinicians are more likely to give a "typically female" diagnosis, such as histrionic personality disorder, to a female client than to a male client, even if both clients meet diagnostic criteria for the disorder (Flanagan & Blashfield, 2003). Some personality disorder experts have argued that the DSM-IV-TR diagnostic criteria themselves are gender-biased (Bornstein, 1996, 1997). For example, the criteria for dependent personality disorder describe ways that women tend to be dependent (asking or pleading for assistance) but do not describe more typically male forms of dependence (relying on others to maintain their homes and care for their children) (Brown, 1992).

To the extent that gender bias influences the diagnosis of personality disorders, it is not clear that this bias mainly stigmatizes women. For example, when both male and female clients show traits indicative of antisocial personality disorder (a "typically male" diagnosis), clinicians have sometimes been found to be more likely to assign this disorder to men than to women (Flanagan & Blashfield, 2003). Although it is true that women are more frequently diagnosed with histrionic, dependent, and borderline personality disorders, six of the seven other personality disorders (all except avoidant personality disorder) are diagnosed more frequently in men.

Class

Most of the personality disorders seem to occur evenly across different socioeconomic groups, although there are a few exceptions. For example, there is some evidence that borderline and dependent personality disorder may occur more frequently among people of lower socioeconomic status (Coid, 2003; Reich, 1996) and strong evidence that the criminal behaviors associated with the diagnosis of antisocial personality disorder occur disproportionately among members of lower socioeconomic classes (Coid, 2003). As you will recall from earlier in this chapter, poverty appears to be a significant risk factor for antisocial behavior. It is not surprising that some researchers have pointed out that delinquent behavior may be an expectable and understandable outcome of living in a violent community or being a victim of violence. Indeed, in his book *Manchild in the Promised Land,* Claude Brown speaks of the security and care provided by the juvenile detention system and how it compared favorably with his life in his neighborhood.

Gender bias Women with histrionic traits are more likely to be diagnosed with histrionic personality disorder than men who display the same behaviors. However, men are more likely to receive a "typically male" diagnosis, such as antisocial personality disorder, than women with the same personality features.

Full of promise Claude Brown, author of *Manchild in the Promised Land,* a thinly disguised autobiography in which he details his efforts to escape a life of hustling, drug-dealing, and violence as a young man growing up in Harlem in the 1950s. Here he revisits his old neighborhood.

Cultural relativism Though some of the diagnostic criteria of schizoid personality disorder might describe the life of a Buddhist monk, such a diagnosis is obviously inappropriate when applied outside of the cultural context for which it was designed.

I was only about fifteen, and I couldn't get a job. I couldn't do anything. I didn't like the idea of not being able to get a place and having to stay out on the street. So I just got fed up one day and went back to Warwick [a juvenile detention facility]. I went down to the Youth House where the bus used to pick up all the boys going to Warwick every other Friday. I just told the bus driver and the other cat that was on the bus that my name was Claude Brown, that I had stayed down from Warwick, and that they were looking for me. They said, "Hop on." So I just hopped on and went up to Warwick.

Brown, 1965 (p. 152)

BRIEF SUMMARY

- According to the DSM-IV-TR, personality disorders should not be diagnosed in clients under the age of 18 because personality has not yet stabilized.
- Some experts contend that there is considerable gender bias in the diagnosis of personality disorders.
- Most of the personality disorders appear to occur at the same rates regardless of social class, with the exception of antisocial personality disorder and possibly borderline and dependent personality disorders, which occur disproportionately among members of lower socioeconomic groups.

Cultural and historical relativism

Critical Thinking Question In your view, would diagnosing Beth (described in one of the case vignettes at the beginning of the chapter) with dependent personality disorder be a gender-biased diagnosis? Why or why not?

Cultural and Historical Relativism in Defining and Classifying Personality Disorders

When we say that someone has a personality disorder, we are saying that he or she consistently exhibits extreme and maladaptive personality traits that do not fit with accepted social standards for behavior. Of course, different cultures have different ideas about what are considered acceptable behaviors (see Table 11.15) so that the definition of specific personality disorders is ***culturally relative***. For example, Buddhist priests might meet DSM-IV-TR diagnostic criteria for schizoid personality disorder (engaging in solitary activity, lack of emotion, appearing to lack sexual desire, etc.) (Roland, 1988), but this diagnosis would obviously be inappropriate in that such behavior is not only appropriate and accepted, but revered within its cultural context.

The core concept of ***historical relativism*** is also important in regard to the personality disorders. Needless to say, norms for social behavior change over time. A twenty-first century middle-class American woman who expects her husband to make all of the significant family decisions, who does not disagree with her husband for fear of losing his support, and who worries that she will be unable to care for herself if left alone might receive a diagnosis of dependent personality disorder. But in the 1950s the same woman might have been considered a typical housewife.

Not surprisingly, the criteria for diagnosing personality disorder diagnoses have changed considerably over time. The original *Diagnostic and Statistical Manual,* published in 1952, contained the first broad, systematic attempt to provide a classification system for personality disorders (APA, 1952). Twelve personality types were described; some (including paranoid, shizoid, and obsessive compulsive personality disorders) have been retained in every subsequent edition of the DSM; others ("dissocial," "inadequate," and "emotionally unstable" personality disorders) have been altered or dropped altogether; and still others ("addictions" and "sexual deviations") have been reclassified and renamed as symptom disorders on Axis I.

Historical relativism June Cleaver, of the TV show *Leave it to Beaver,* was considered to represent the ideal 1950s mother. A woman, in today's world, who similarly defers to her husband on all major decisions might be viewed as overly dependent.

TABLE 11.15 **Culturally Normative Examples of Traits Associated with DSM-IV-TR Personality Disorders**

Paranoid	Immigrant and minority populations may express extreme mistrust of institutions and authorities.
Schizotypal	Shaman or mystics in some societies engage in magical thinking and have unusual perceptual experiences.
Histrionic	An intensely expressive emotional style that appears excessive or flamboyant by American standards is not unusual in some Mediterranean cultures. Margaret Mead documented similar traits among the males of the Tchambuli tribe of New Guinea (1963).
Narcissistic	The culturally valued trait of "machismo," as sometimes expressed by young Latino males, can be mistaken for narcissism.
Avoidant	Immigrant and minority cultures may have avoidant traits while in the process of becoming acculturated to a new culture or community.
Dependent	Passivity, extreme politeness, and deference to others and their opinions is a normal, culturally valued behavior in some Asian and Arctic societies.
Obsessive-compulsive	Devout religious believers may appear to be overly scrupulous with regard to morality and preoccupied with rules and rituals.

Based on Buffenstein, 1997, and Foulks, 1996

In addition, the DSM-IV-TR includes an appendix titled "Criteria Sets and Axes Provided for Further Study," which lists new diagnostic categories being considered for inclusion in future editions of the DSM. The disorders in this appendix are usually controversial or not yet well-validated; they may later be removed from the DSM altogether or "upgraded" to the status of a new disorder. For example, *self-defeating personality disorder* was included in the appendix of the DSM-III-R (1987) but removed from the DSM-IV (1994) due to protests that it could be unfairly applied to women who are coerced into remaining in abusive relationships (Walker, 1987). At present, two proposed personality disorder diagnoses (depressive personality disorder and passive-aggressive personality disorder) are being studied for possible inclusion on Axis II in the next edition of the DSM.

The Advantages and Limitations of the DSM-IV-TR Personality Disorder Diagnoses

Advantages/ limitations of diagnosis

For a variety of reasons (see Chapter 3), the DSM personality disorder diagnoses have historically shown relatively poor **reliability** and **validity** (Ottoson, Grann, & Kullgren, 2000; Schopp & Trull, 1993; Zimmerman & Coryell, 1989); the reliability of most Axis I disorders is considerably higher (Chapter 3). This poor reliability and validity stems, in part, from the fact that many personality disorders, especially those within the same cluster, have overlapping diagnostic criteria. For example, attention-seeking behavior is common in both histrionic and narcissistic personality disorders, while social withdrawal is an important component of schizoid, schizotypal, and avoidant personality disorders.

Reliability The consistency of a test or category system or the raters using them.

Validity The accuracy of a test or category system or the raters using them.

A high percentage of people who meet criteria for one personality disorder diagnosis also meet criteria for another. In a study of 627 people with personality disorders, researchers found that more than half of the participants met the diagnostic criteria for two or more personality disorder diagnoses (Stuart et al., 1998). Several personality disorders frequently co-occur: schizotypal and paranoid, schizotypal and schizoid, narcissistic and histrionic, and avoidant and schizotypal. Indeed, real-life examples of people who have traits associated with many different personality disorders are

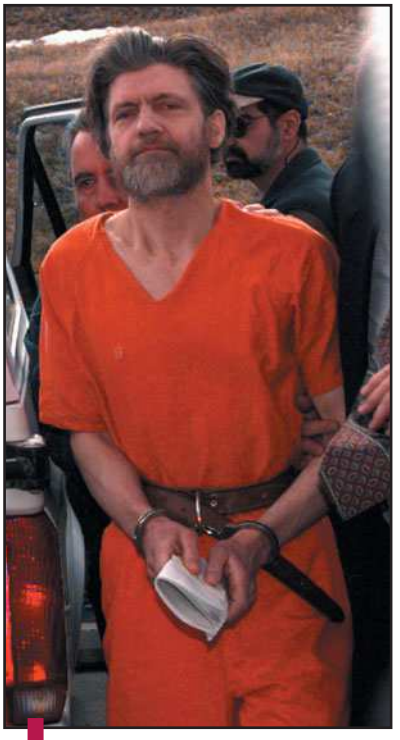
commonplace (see Box 11.4). The common co-occurrence of some personality disorder diagnoses has caused researchers to wonder whether personality disorders that tend to be diagnosed together (such as schizoid and schizotypal) are really two distinct conditions, or simply variations on a single underlying theme.

BOX 11.4 One Man, Three (or More) Diagnoses

THEODORE KACZYNSKI

Theodore Kaczynski—also known as the Unabomber—seems to suffer from profound personality pathology, but he is very difficult to categorize. Kaczynski's mail bombs killed 3 and injured 23 people, but throughout his trial he maintained that his actions were justified. His remorseless disregard for the rights (and lives!) of others clearly suggests the diagnosis of antisocial personality disorder. Yet prior to his arrest in 1996, his behavior was also consistent with schizoid and schizotypal personality disorders and schizophrenia (Chapter 12). Kaczynski lived alone in a remote cabin, expressed little interest in relationships with others, even members of his own family, and was extremely eccentric in appearance, thinking, and behavior. Extensive investigations into Kaczynski's background found that from earliest childhood on he had never had a real friend other than his brother (McFadden, 1996). Kaczynski also has traits that are consistent with paranoid personality disorder, such as his extreme distrust of others and tendency to hold grudges for extended periods of time. Kaczynski confounded authorities for over 18 years. He was finally caught after *The Washington Post* agreed to publish his manifesto against technology in exchange for his promise to end his violent behavior. Kaczynski's brother recognized his sibling's words and notified the FBI that the man they were looking for was a mathematical genius living in a Montana cabin. The following excerpts from a biographical account documenting Ted Kaczynski's complex and lifelong emotional troubles.

> *Teddy once showed a school wrestler how to make a more powerful mini-bomb. It went off one day in chemistry class, blowing out two windows and inflicting temporary hearing damage on a girl. Everyone was reprimanded, but Teddy was unfazed. He later set off blasts that echoed across the neighborhood and sent garbage cans flying. . .*
>
> *Teddy skipped another grade and after only three years graduated from high school in 1958, and won a scholarship to Harvard. He was only 16. "The thought was, if he went to a university, such as Harvard, he might not have the pressure to conform in a working-type class community like Evergreen Park, and that the experience might be liberating for him socially" David [his brother] explained. . .*
>
> *In the next three years, Mr. Kaczynski lived in a seven-man suite at Eliot House, one of a dozen residential dormitories overlooking the Charles River, but he had almost no contact with his suitemates. . . . One suitemate, Patrick McIntosh, now a Colorado astronomer, said that in three years, "I don't recall more than 10 words being spoken by him." . . . "He was intensely introverted . . . he wouldn't allow us to know him. I never met anybody like him who was as extreme in avoiding socialization. He would almost run to his room to avoid conversation if one of us tried to approach him". . .*
>
> David Kaczynski said his brother wrote some letters home, and one mentioned "a girl he kind of admired from afar." He added, "He eventually asked her for a date and was rebuffed." If Ted was miserable, he never mentioned it, David said. He was "a person who nursed a sense of injury." After graduating from Harvard, Ted Kaczynski received a Ph.D. in mathematics at the University of Michigan and then secured a prestigious position as a professor at the University of California at Berkeley. He abruptly quit the position after only two years.
>
> *David [his brother] saw the decision to quit mathematics as part of a pattern in his brother's life. "He was a person who seemed capable of closing doors on things, on people, on stages of his life," he said. "That cutting himself off was part of what he was about. At some point, it happened with me. At some point, it happened with our parents. . . . It was also true with a friend of his who would call in high school. 'Hi, it's Mosny. Is Ted around?' 'I don't want to talk to him.' You can expand that whole theme of cutting oneself off."*
>
> *McFadden, 1996 (pp. 12–13)*



Brotherly love After 18 years of searching, the FBI ultimately located Ted Kaczynski based on information they received from his brother, David. Kaczynski's brother asked the FBI to rule out the death penalty in exchange for information about Ted's whereabouts.

Another limitation of the personality disorder diagnoses stems from the fact that the DSM-IV-TR relies on **polythetic**, or multiple, criteria sets (Segal & Falk, 1998). Although polythetic criteria sets can enhance the reliability of diagnoses—since a person is required to meet a minimum number of criteria in order to be diagnosed with a disorder—no one criterion is critical to the overall diagnosis. For example, the DSM-IV-TR lists seven symptoms for the diagnosis of antisocial personality disorder, but only three of the seven symptoms need to be present to warrant the diagnosis (see Table 11.5). Thus, two people who do not share a single trait could be assigned the same personality disorder diagnosis. To address these problems, some experts have proposed that personality disorders should be reclassified according to a **dimensional system** (in which clinicians would rate *how much* of a given trait a client exhibits) rather than using the current **categorical system** (in which clinicians have to arrive at a "yes" or "no" answer as to whether a client meets criteria for various personality disorders) (Widiger & Trull, 2007). This proposal is under consideration for future editions of the DSM.

Polythetic Diagnostic criteria sets in which a person is required to meet a minimum number of predetermined diagnostic criteria in order to warrant a diagnosis—no one criterion is critical to the overall diagnosis.

Dimensional system A diagnostic system in which individuals are rated for the degree to which they exhibit traits along certain dimensions.

Categorical system A diagnostic system, like the DSM system, in which individuals are diagnosed according to whether or not they fit certain defined categories.

BRIEF SUMMARY

- The definition and classification of personality disorders is ***culturally and historically relative*** because different cultures and historical periods have different norms for behavior.
- Some personality disorders have overlapping diagnostic criteria and often co-occur, posing challenges to the reliability and validity of the diagnoses.
- Polythetic criteria sets have improved the reliability of the personality disorder diagnoses, but some experts argue in favor of dimensional, rather than categorical, diagnoses for personality disorders.

Critical Thinking Question Can you think of other personality traits that might be valued during one historical period, but considered abnormal in another?

Cultural and historical relativism

CASE Vignettes

Treatment

Tyler • Paranoid Personality Disorder

Tyler began his first therapy session by explaining to his therapist that he was worried that his girlfriend Sarah was having an affair. When the therapist asked what made Tyler think that she was unfaithful, he could offer little in the way of objective evidence, but said that he could just "tell" that things between them had changed. As the evaluation continued, the therapist asked about Tyler's work at a nearby auto shop. Tyler seemed guarded in his response and complained about many of his co-workers, saying that they were "shady characters" and that he had found it better not to associate too closely with anyone. To this end, he had told few co-workers about his long-standing relationship with Sarah for fear they would try to sabotage it.

Tyler agreed to begin therapy, hoping to get some relief from his suspicions about Sarah. Before too long, Tyler told his therapist about his attraction to one of the secretaries at the auto shop and his worry that Sarah would think him unfaithful for looking at other women. The therapist suggested that perhaps Tyler's concern about Sarah's fidelity was partly a concern about his own.

In a subsequent session, Tyler's therapist pointed out that he seemed to be somewhat angry with her (the therapist) that day. Tyler told her that he had seen her when she was out enjoying herself with friends at a restaurant, and he had begun to feel that she found him boring and repetitive, not nearly as interesting as her other clients. The therapist was able to use this transference reaction to help Tyler see that his anger toward others was related to worries about whether he was interesting and worthwhile. Over time, Tyler's doubts about Sarah's fidelity diminished somewhat, and he was able to appreciate that he often had such doubts when he was feeling insecure or disappointed in the relationship. The therapy continued to focus on the ways that these emotional conflicts contributed to his general suspiciousness and hostility.

CASE DISCUSSION • Paranoid Personality Disorder

Tyler's therapist focused on psychodynamic exploration of Tyler's paranoid beliefs that most people are malicious and untrustworthy. Using traditional psychodynamic techniques (attention to defense mechanisms and transference phenomena) Tyler and his therapist were able to learn how his feelings of inadequacy, his fear of being disappointed in relationships, and his projection of his own unacceptable impulses fueled Tyler's paranoia, such as his fear that Sarah was cheating on him. This understanding led to a decrease in Tyler's paranoia, though he remained somewhat guarded and aloof.

Beth • Dependent Personality Disorder

Beth was very glad to begin therapy and hoped that her therapist would help her to make the important decisions she now faced. The therapist avoided offering advice to Beth (feeling certain that Beth would accept any suggestion uncritically and become dependent on her) and instead began the therapy by trying to help Beth improve her mood. After several weeks of talking about the stresses of the upcoming graduation, and with the help of antidepressant medication, Beth's mood did begin to improve.

Once Beth was feeling less depressed, her therapist began to challenge Beth about her difficulty deciding on a career or motivating herself to find a job. Beth said that she worried that she would be unable to do the work expected of her in a job. Using cognitive techniques, the therapist helped Beth to evaluate the evidence for and against this belief. Given Beth's excellent academic record, it was not hard to highlight the distortions in her thinking. Over time, Beth became increasingly aware that her beliefs about her own incompetence did not really reflect reality. She began to use her therapy to talk about how she had been "coddled" by her parents. She was torn between feeling that their extreme devotion was the "essence of love" and being envious of her friends whose parents seemed to encourage and expect their children to become independent adults. As Beth began to apply for jobs and look for a place to live, she was met with surprising resistance from her family. In therapy, Beth began to explore the reasons behind her parents' growing insistence that she come home after graduation. During a weekend visit with her family she observed that her parents seemed to have difficulty talking with each other and wondered why they focused so much on her instead of dealing with problems in their marriage.

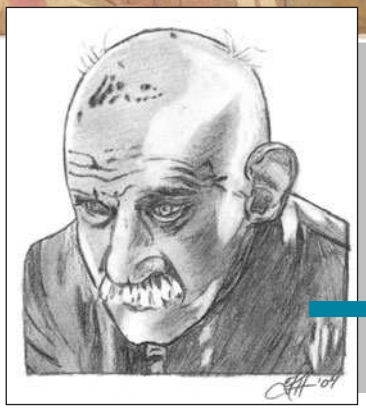
CASE DISCUSSION • Dependent Personality Disorder

Beth's therapist combined a number of interventions to address Beth's excessive dependence. An initial focus on her depressive symptoms and a trial of antidepressant medication lifted Beth's mood enough that she could begin to work on other issues. Beth and her therapist began to evaluate the evidence for and against her dysfunctional beliefs, and as Beth came to appreciate the distortions inherent in these beliefs she recognized that her parents fostered and rewarded her excessive dependence and that they might have done so in order to distract themselves from their own troubles.

Chapter Summary

- Personality is considered to be disordered when personality traits are maladaptive, rigid, and extreme.
- Most of the traits associated with personality disorders occur on a ***continuum between normal and abnormal behavior***. Personality disorders usually involve extreme versions of common personality traits.
- The DSM-IV-TR personality disorders are organized into three groups:
  - *Cluster A* (characterized by odd or eccentric behavior): paranoid, schizoid, and schizotypal personality disorders
  - *Cluster B* (characterized by dramatic, emotional, or highly erratic behavior): antisocial, borderline, histrionic, and narcissistic personality disorders
  - *Cluster C* (characterized by anxious or fearful behavior): avoidant, dependent, and obsessive-compulsive personality disorders
- In keeping with the ***principle of multiple causality***, the psychodynamic, cognitive-behavioral, sociocultural, and biological perspectives have different, but often overlapping or complementary, ideas about the causes and treatments of personality disorders.
- Demographic ***context*** factors, such as age, gender, and social class are highly relevant to the personality disorder diagnoses.
- The classification of personality disorders is ***culturally and historically relative*** because different cultures and historical periods have different norms for behavior.
- Some personality disorders have overlapping diagnostic criteria, and personality disorders often co-occur, posing challenges to the reliability and validity of the diagnoses and highlighting the ***advantages and limitations of diagnosis***.

Henry Darger, *After Marcocino*. Watercolor, carbon tracing and pencil on joined papers, 48.3 x 120.4 cm./Art Resource, NY/©2007 Artists Rights Society (ARS), New York



Karen Heyt, Techsetters, Inc.

Henry Darger (1892–1972), who probably suffered from schizophrenia, lived in almost complete seclusion in a Chicago apartment for most of his life. Upon his death, Darger's landlord found that he had written a 15,145-page epic story titled *The Story of the Vivian Girls, in What Is Known as the Realms of the Unreal, of the Glandeco-Angelinnion War Storm, Caused by the Child Slave Rebellion.* The text—a tale of seven young girls under attack from a group of men known as the Glandelinians—was accompanied by over 150 watercolor and pencil illustrations depicting the strange and gory battles between the Vivian girls and their enemies. Darger's work is considered one of the twentieth century's most significant collections of "outsider art," or artwork by a person with no formal training.

CHAPTER 12

Psychosis and Schizophrenia

CASE Vignette

Peter had a relatively happy and healthy childhood. As the only child of older parents, Peter enjoyed their exclusive attention. He was a highly intelligent boy, with a tendency to be somewhat shy and quiet. Peter's parents were also introverted, and the family was oriented toward intellectual rather than social pursuits. Peter got along well with peers in grade school, but he never had close friends and preferred playing by himself with his toys. In middle school, Peter became fascinated with music, and by high school he was an accomplished cellist. He was accepted at a nearby college where he decided to major in music.

Peter's freshman year went well. He liked the music program and did outstanding work. Peter was not very social, but this didn't bother him or concern his parents since that was typical for him. However, when Peter returned for his sophomore year, everything seemed different to him. He told his parents that he felt strange, alienated, and unreal. He was having trouble concentrating, and his music suffered. At first, his parents suspected that he was experiencing a "sophomore slump" or that he might be physically sick. Then, during the winter term, Peter began to behave bizarrely and clearly was not himself. He would not wash or change clothes for days and sometimes only left his room to eat. Peter began to babble and talk strangely over the phone to his parents. Classmates and faculty noticed that he seemed to be talking to himself. Peter's parents came to visit and see what was wrong. When they saw Peter, they were immediately alarmed. He looked disheveled and had a blank, hollow expression in his eyes. Their concerns only increased when they spoke to him. Peter seemed scared and accused them of being terrorists and "devils." He ran around his room in circles mumbling that he was the Messiah, and he appeared to be responding to imaginary voices. Peter's parents immediately called campus security, who escorted the family to a nearby hospital.

DEFINING PSYCHOSIS AND SCHIZOPHRENIA

Peter is exhibiting a symptom known as **psychosis**—a state of being profoundly out of touch with reality. Psychosis can take many forms. People who are psychotic may experience **hallucinations**—abnormal sensory experiences such as hearing or seeing nonexistent things—and/or **delusions**, which are fixed, false, and often bizarre beliefs, such as Peter's idea that he is the Messiah. Psychosis can also take other forms, as we'll see, and it can occur as a symptom in several different mental disorders as well as in some medical conditions. For example, we saw in Chapter 5 that some severe mood disorders can include psychosis among their symptoms. But one mental disorder is most closely associated with psychosis: **schizophrenia**. When people equate schizophrenia with true madness or insanity, as they often do, it is usually because of schizophrenia's prominent psychotic symptoms.

Psychosis A state of being profoundly out of touch with reality.

Hallucinations Abnormal sensory experiences such as hearing or seeing nonexistent things.

Delusions Fixed, false, and often bizarre beliefs.

Schizophrenia A disorder marked by psychosis and a decline in adaptive functioning.

As you can see in the case of Peter, schizophrenia is a terribly incapacitating disorder. In addition to psychosis, schizophrenia causes impairment in many mental functions and a general disruption and decline in one's ability to function normally. Although treatments are now available that can significantly help most clients with schizophrenia, the disorder still takes an enormous toll on clients, their families, and society. Though it is not a common disorder, schizophrenia is hardly rare: it is found across almost all known cultures in approximately 1 out of every 100 people (Harrap & Trower, 2001; Narrow et al., 2002). Schizophrenia has devastating financial costs; experts have estimated that the total socioeconomic impact of schizophrenia in the United States alone for the year 1990 was $32.5 billion (Coleman & Gillburg, 1996; Taber, Lewis, & Hurley, 2001). The human cost of schizophrenia, in diminished human potential, disrupted families, and suicide, is, of course, incalculable. Suicide is a tragically common occurrence in people with schizophrenia (Meltzer, 2002; Palmer, Pankratz, & Bostwick, 2005; Pinikahana, Happell, & Keks, 2003; Raymont, 2001; Torrey, 2001). According to two Swedish studies, up to 12% of individuals diagnosed with schizophrenia committed suicide within 17 years of their first hospitalization (Berrios, Luque, & Villagran, 2003; Coleman & Gillberg, 1996). Twenty to 40% of people diagnosed with schizophrenia attempt suicide at some point in their lives (APA, 2000).

Because schizophrenia is such a profound and often frightening disorder, it is frequently misunderstood, and popular myths about it are widespread. As a result, we'll begin by discussing what schizophrenia is *not* before discussing what it *is*. Perhaps the two most common myths about schizophrenia are that it consists of a "split personality" and that individuals with schizophrenia are dangerously violent. As to the first notion, schizophrenia actually involves disruptions of mental functions rather than a division into multiple identities. Having multiple, alternating identities constitutes a totally separate disorder—the dissociative disorder known as *dissociative identity disorder* (Chapter 7). As for the second myth, it is true that a subset of individuals with schizophrenia are often violent and that impulsive, disorganized behavior can be among the symptoms of the disorder. However, the majority of individuals with schizophrenia, especially those receiving treatment, are no more dangerous than anyone else, and they are just as likely to be withdrawn and inhibited as they are to be impulsive (Gut-Fayand et al., 2001; Hausmann & Fleischhacker, 2000).

Unfortunately, it is easier to describe what schizophrenia is *not* than to describe what it is. Schizophrenia is a complex disorder that has always eluded clear definition (Jablensky, 1997). Despite our rapidly increasing knowledge of the disorder and the increasingly refined criteria for diagnosing it, much debate remains over the essential nature and symptoms of schizophrenia and what distinguishes it from related disorders (Gottesman et al., 2003; Torrey, 1999; Tsuang, Stone, & Faraone, 2000). These debates involve some of the core concepts in abnormal psychology, which, as we have seen, affect the definitions, classifications, explanations, and treatments of all mental disorders. With respect to schizophrenia, the core concepts of ***cultural and historical relativism*** and the ***principle of multiple causality*** are especially relevant.

CLASSIFYING PSYCHOSIS AND SCHIZOPHRENIA

We begin our study of schizophrenia with a discussion of some of the cultural and historical factors that have affected how schizophrenia has been defined and classified.

Cultural and Historical Relativism in Defining and Classifying Schizophrenia

Cultural and historical relativism

Psychotic madness has been observed and documented since ancient times (Libbrecht, 1995; Palha & Esteves, 1997). Descriptions of psychosis can be found in the Hindu Ayur Veda texts, the Old and New Testaments, and many other ancient sources (Johnstone, 1994; Sutker & Adams, 2001). People suffering from psychosis have not always been regarded as sick. At some times and in certain cultures, psychotic individuals have been viewed as especially creative, spiritual, wise, or enlightened (Schuldberg, 2001). This attitude resurfaced in the Western world during the 1960s, when certain theorists romanticized schizophrenic psychosis as a heightened appreciation of reality or an effort to be sane in an insane world (see Box 12.1).

Within Western scientific and medical traditions, however, psychosis has been generally regarded as a symptom of illness. Interest in classifying different forms and causes of psychosis began to flourish in the 1800s as part of the overall progress in medical science. At that time, most descriptions of psychosis involved people who seemed to become psychotic in the context of severe, episodic *mood* states—such as what we would now call major depression with psychosis (Johnstone, 1994). However, written descriptions of another pattern of psychotic disorder—more chronic, and not associated with extreme mood fluctuations—began to appear in the early nineteenth century

BOX 12.1 The Politics of Psychosis

MARK VONNEGUT AND *THE EDEN EXPRESS*

Mark Vonnegut's memoir of his schizophrenic breakdown, *The Eden Express* (1975), chronicles the contrast between his terrifying ordeal and the romanticized view of psychosis held by his friends in the 1960s counterculture and supported by the antipsychiatry writings of R. D. Laing and Thomas Szasz. Vonnegut, the son of the novelist Kurt Vonnegut, Jr., had been sympathetic to these radical views of psychosis as a creative or healthy process before his breakdown, but his "not-so-cheery" experience changed his mind. Here are some excerpts from his book.

> *If I had had a well defined role in a stable culture, it might have been far simpler to sort things out. For a hippie, son of a counterculture hero, B.A. in religion, genetic biochemical disposition to schizophrenia, setting up a commune in the wilds of British Columbia, things tended to run together . . .*
>
> *(p. ix)*
>
> *At first my friends and I were doubtful that there was any medical problem. It was all politics and philosophy. The hospital bit was just grasping at straws when all else failed. It took quite a bit to convince us that anything as pedestrian as biochemistry was relevant to something as profound and poetic as what I was going through. For me to admit the possibility that I might not have gone nuts had they given me pills when I left was a tremendous concession . . .*
>
> *(p. 248)*
>
> *I myself was a Laing-Szasz fan and didn't believe there was really any such thing as schizophrenia. I thought it was just a convenient label for patients whom doctors were confused about. I even worked in a mental hospital for several months without being convinced otherwise . . .*
>
> *(p. 265)*
>
> *I cracked in very hip surroundings. While it has advantages in terms of people being willing to go the extra mile, having more respect and sympathy for the terrors you're going through, it can also add some new problems. I was often afraid to tell my friends what was going on, not so much because they'd think I was nuts, but more because it might sound like bragging. Many of the things that were happening to me were things I was supposed to like: ego death, communicating the supernatural, hypersensitivity of all sorts. If there's anything worse than bragging about such things, it's not liking them. . .*
>
> *(p. 268)*

in publications by Philippe Pinel, the psychiatric reformer, and others (Gottesman, 1991; Johnstone, 1994). Throughout the nineteenth century, medical authorities attempted to come up with classification systems for these different forms of psychosis. Near the end of the century, a useful distinction was proposed by Emil Kraepelin (1856–1926), a professor of psychiatry in Heidelberg and Munich who is often referred to as the "father of modern psychiatry." In the sixth edition of his textbook, Kraepelin (1923) suggested that psychoses could be divided into two broad classes: manic-depressive psychosis (now called bipolar disorder) and **dementia praecox** (now called schizophrenia), which comes from the Greek for "premature dementia." This name, which Kraepelin borrowed from Benedict Morel's 1852 case description of a psychotic adolescent, reflected the fact that this second pattern of psychosis seemed to be characterized by an early-adult onset, a progressive deteriorating course, and a global disruption of perceptual and cognitive functions (Gottesman, 1991; Johnstone, 1994; Tsuang et al., 2000). This was in contrast to manic-depressive psychosis, which typically had a later onset, periods of normal functioning in between episodes, and relatively normal cognitive functioning. Here is Kraepelin's description of a typical case of dementia praecox.

Dementia praecox An early term for schizophrenia, from the Greek for "premature dementia."

> *The patient was a 21-year-old man who had become more and more solitary over the past few years. A year previously he had failed university examinations and then became preoccupied with the belief that he was ugly, that he had a rupture and that he was suffering from wasting of the spinal cord, which he believed was the result of masturbation. He had stopped seeing friends because he believed they knew about this and were making fun of him about it. Prior to admission he began crying a great deal, masturbated, ran about aimlessly, was occasionally excited and disturbed at night, played senseless tunes on the piano, and began to write obscure observations on life.*
>
> *In hospital he was in a state of excitement for several days, during which he chattered in a confused way, made faces, ran about, wrote in disconnected scraps, which were crossed and recrossed with flourishes and meaningless combinations of letters. After this a tranquil state ensued. The patient would lie in bed for weeks or months, or sit around without feeling the slightest need to occupy himself, or at best turning over the pages of a book. He would stare ahead with expressionless features, over which a vacant smile would play. When he had visitors he would sit without showing any interest, would not ask what was happening at home, hardly ever greeted his parents, and would go back indifferently to the ward.*
>
> *from McKenna, 2001 (p. 169)*

The term *schizophrenia* was coined later by Eugen Bleuler, a Swiss psychiatrist. Bleuler (1911/1950) intended to further Kraepelin's work, although Bleuler felt that Kraepelin's diagnostic category was too narrow because in some cases there were no prominent psychotic symptoms or evidence of early onset and gradual deteriorating course. As a result, Bleuler was more optimistic than Kraepelin about the prognosis of the disorder (Bleuler, 1911/1950; Coleman & Gillberg, 1996; Wyatt, 2001). Bleuler's focus was on symptoms that have become known as the "4 A's" of schizophrenia: (1) extreme *Ambivalence* (referring to a kind of paralysis of the will); (2) abnormal *Associations* in thinking; (3) disturbed *Affect* (emotion); and (4) *Autism* (a withdrawal into fantasy instead of focus on reality). (Incidentally, the term *autism*, which Bleuler also coined, is now used to describe a separate disorder of childhood involving profound social, communicative, and behavioral disturbances—see Chapter 13.) Bleuler renamed this syndrome of symptoms *schizophrenia*, from the Greek for "split mind" (*schizo* = schism or split; *phrenia* = mind). This term has contributed to the common misunder-

standing that schizophrenia involves multiple personalities, but Bleuler's intention was to highlight the profound disruptions in thought, emotion, and behavior in schizophrenia, not a condition of multiple identities. "I call dementia praecox 'schizophrenia,'" Bleuler (1911, p. 8) wrote, "because the 'splitting' of different psychic functions is one of its most important characteristics."

Bleuler also believed that schizophrenia was probably not a single disorder, but a group of related "schizophrenias," which foreshadowed current thinking about the disorder (Bleuler, 1911/1950). His approach—including his expansion of the diagnostic category—became widely accepted, particularly in the United States. However, this led to problems in the *reliability* of the diagnosis of schizophrenia (Bentall, 1990), since European psychiatrists tended to stay closer to Kraepelin's narrower definition, even though they used Bleuler's new diagnostic term. This problem persisted for decades, and it resulted in many more diagnoses of schizophrenia in the United States than in Europe, where the same types of patients were often classified as manic-depressive, as shown in Figure 12.1 (Cooper et al., 1972; Wing, Cooper, & Sartorius, 1974). The DSM-I (1952) and DSM-II (1968) criteria for diagnosing schizophrenia were somewhat vague and imprecise. Because of the reliability and validity problems associated with these vague criteria, and in keeping with the reform mission of the DSM-III (1980) emphasizing reliability and empirical observation, the criteria for schizophrenia were clarified and narrowed in the third edition, with a focus on psychosis as central to the diagnosis of schizophrenia in the DSM-III. This brings us to the current DSM-IV-TR criteria for schizophrenia, which we turn to next.

BRIEF SUMMARY

- Psychosis is a symptom involving a profound loss of contact with normal reality. Hallucinations (abnormal sensory perceptions) and delusions (false, fixed, and often bizarre beliefs) are the most common forms of psychosis.
- Psychosis can occur in many mental disorders, but it is most frequently associated with *schizophrenia*.
- Although it has been described for hundreds of years, schizophrenia still eludes clear definition. Kraepelin pioneered modern attempts to define the disorder with his category called dementia praecox, or premature dementia. Bleuler later coined the current term for the disorder—schizophrenia.
- Despite considerable overlap in Kraepelin's and Bleuler's views of schizophrenia, the differences between them led to problems with the reliability of the diagnosis. The diagnostic criteria for schizophrenia have been refined and standardized in the recent editions of the DSM.

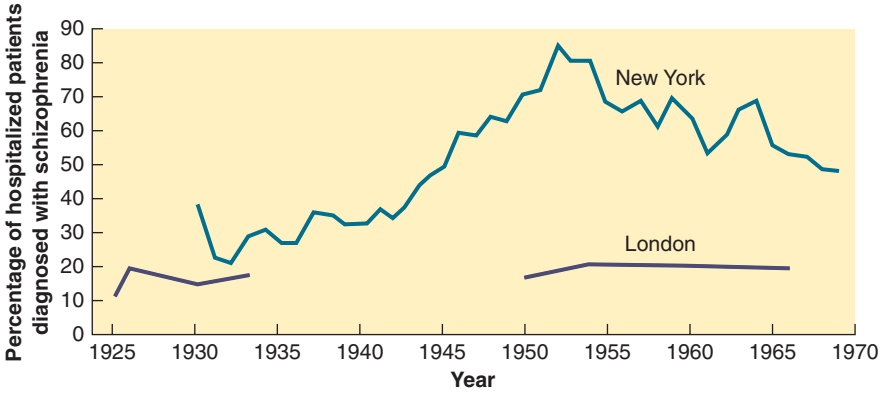


Figure 12.1 Differences in Diagnosing Schizophrenia Between the United States and United Kingdom This graph shows the enormous difference in the percentage of hospitalized psychiatric patients diagnosed with schizophrenia in the United States as compared to the United Kingdom, especially during the 1950s and 1960s. This difference highlights the core concept of *cultural relativism* in classifying schizophrenia since the difference cannot be accounted for by actual differences in the prevalence of schizophrenia between the two countries. In addition, the large increase in the percentage of patients diagnosed with schizophrenia within the United States between the 1930s and the 1950s illustrates *historical relativism* in classifying schizophrenia since the profound increase was largely due to changes in diagnostic practice over that time period.
Gottesman, 1991, p. 32

Critical Thinking Question Does the case of Peter help you understand why schizophrenia has been subject to so much misunderstanding and confusion? How so?

The DSM-IV-TR Categories

For many years, researchers have tried to identify and clarify the core symptoms of schizophrenia. Empirical studies attempting to do so have yielded conflicting results, perhaps because schizophrenia is not a single disorder, but a group of related disorders or subtypes (Andreason et al., 1995; Roy, Merette, & Maziade, 2001). This hypothesis, originally proposed by Bleuler, is now supported by many researchers, and up to 70 different subtypes of schizophrenia have been proposed. The DSM-IV-TR provides an operational, or working, definition of schizophrenia, but many experts question whether it captures the "true" essence of the syndrome (Bertelsen, 2002; Martins et al., 2004; Tsuang et al., 2000).

Schizophrenia

The DSM-IV-TR currently defines schizophrenia in terms of a constellation of severe cognitive and behavioral symptoms that last for a certain length of time (six months or more) and result in significant life impairment. The symptoms are divided into five types; in most cases, two or more symptom types must be present in order to make the diagnosis (see Table 12.1). The first two types of symptoms—delusions and hallucinations—are familiar as the most common forms of psychosis. The next two symptom types—**disorganized speech** and **grossly disorganized behavior** (discussed in detail later in the chapter)—are also considered psychotic under the broadest definition of the term. As a result, they are grouped together with delusions and hallucinations as what are called the **positive** or **type I** symptoms of schizophrenia (Crow, 1985; Ho & Andreason, 2001). The term *positive* is not meant to imply that these symptoms are good. Rather, it conveys that all of these symptoms represent *excesses*, exaggerations, or distortions from normal functioning—the presence of something that is normally absent. Positive symptoms contrast with the **negative**, or **type II** symptoms of schizophrenia, which constitute the fifth symptom listed in the DSM-IV-TR. The negative symptoms refer to the *deficit* aspects of schizophrenia—the absence of functions that are normally present—such as apathy, withdrawal, poor concentration, and lack of emotion (Limpert & Amador, 2001) (see Table 12.2). Let's look at each symptom type in more detail.

Disorganized speech Severe disruptions in the process of speech.

Grossly disorganized behavior Bizarre or disrupted behavioral patterns, such as disshevelment, extreme agitation, uncontrollable childlike silliness, or an inability to perform simple activities of daily living.

Positive or **Type I symptoms of schizophrenia** Symptoms that represent pathological excesses, exaggerations, or distortions from normal functioning, such as delusions, hallucinations, and disorganized speech, thought, or behavior.

Negative or **Type II symptoms of schizophrenia** Symptoms that represent pathological deficits, such as flat affect, loss of motivation, and poverty of speech.

Positive Symptoms of Schizophrenia: Delusions As we have seen, delusions are defined as fixed, false beliefs, such as Peter's belief that he is the Messiah. Obviously, it

TABLE 12.1 Diagnostic Criteria for Schizophrenia

- Two or more of the following five symptoms:
  - Delusions
  - Hallucinations
  - Disorganized speech
  - Grossly disorganized or catatonic behavior

  (Positive/Type I symptoms)
  - Negative symptoms (such as lack of emotion, speech, or motivation)

  (Negative/Type II symptoms)
- Social/occupational dysfunction and decline
- Continuous signs of the disorder for at least 6 months

Adapted from DSM-IV-TR (APA, 2000)

TABLE 12.2 Positive (Type I) and Negative (Type II) Symptoms of Schizophrenia

Positive/Type I symptoms ■ Pathological *excesses*, such as delusions, hallucinations, and disorganized speech, thought, or behavior.
Negative/Type II symptoms ■ Pathological *deficits*, such as flat affect, loss of motivation, and poverty of speech.

can be difficult under some circumstances—particularly across cultural contexts—to distinguish a true delusion from a strongly held but sane belief that may seem bizarre to an outsider. For example, many Americans viewed the September 11, 2001, hijackers' belief that they would be rewarded in paradise for their acts as delusional, but experts caution that this belief was not necessarily delusional within the hijackers' religious/ cultural subculture.

Delusional beliefs are impervious to reason or refutation by evidence; as a result, it is futile to argue with someone holding a delusional belief. An old psychiatric joke humorously illustrates the fixed nature of delusions.

> Delusional Patient: Doctor, you have to help me! I'm dead—literally dead!
>
> Doctor (thinking he can reason with the delusional patient): Of course you're not dead—you're walking and talking! Tell me this: do dead men bleed?
>
> Patient: No—everyone knows that!
>
> Doctor (feeling smug): Then why is your face bleeding where you cut yourself shaving?
>
> Patient: I'll be darned—dead men *do* bleed!

This hypothetical patient's ability to incorporate any contradictory evidence into his delusion is typical of delusional thinking. (For another example, see Box 12.2.)

The DSM-IV-TR distinguishes between *bizarre* and *nonbizarre* delusions, although it can be difficult to make this distinction in practice. Bizarre delusions are those that do not relate to ordinary life experience. For example, the idea that a secret race of aliens is controlling one's actions through invisible rays from their home planet would be considered a bizarre delusion. In contrast, the belief that one is being followed by the CIA would be considered a nonbizarre delusion (assuming that it is not true!).

In terms of content, *delusions of persecution*—the idea that one is being attacked, followed, controlled, and so on—are the most common. *Delusions of grandeur*, such as Peter's belief that he is the Messiah, and *delusions of reference*, which involve the false assumption that external events are connected to oneself (such as the idea that a TV announcer is specifically talking to you) also occur frequently. Other common themes in delusions include guilt *(delusions of sin)*, illness *(hypochondriacal delusions)*, and the impending end of the world *(nihilistic delusions)*. The following description of a man suffering from schizophrenic delusions illustrates bizarre delusions of persecution and grandeur.

> *[He believes that] transmitters control his thoughts, tape recorders control his actions. The skin behind his eyes was broken away and there is nothing behind them. When he urinates, his nipples move up his chest and lodge in his forehead. His nipples control the traffic. His brain is upside down; there is a plastic bag in his brain; there is a man cycling in his brain. He built the hospital. When he first came to the hospital it was because he had been found at the bottom of a river, together with pieces of other bodies in plastic bags. He has 500 bodies some or all of which are dead.*
>
> *McKenna, 2001 (p. 171)*

BOX 12.2 A Study in Delusions

THE THREE CHRISTS OF YPSILANTI

In 1959, a Michigan State University professor named Milton Rokeach conducted an unprecedented study on delusional thinking. He discovered that each of three patients at the nearby Ypsilanti State Mental Hospital held the delusional belief that he was Jesus Christ. Rokeach wondered whether the men might alter their delusional thinking if confronted with each other. He arranged to have the three men live and work together for two years. At the end of that time, all three still held fast to their delusions; they simply managed to convince themselves that the others were imposters! Of course, this study occurred before the wide availability of effective antipsychotic medications. Today, the three men would undoubtedly have had their delusions treated more successfully. Here are some excerpts from Rokeach's book, *The Three Christs of Ypsilanti* (Rokeach, 1964):

> *The Three Christs met for the first time in a small room off the large ward where they live. The date was July 1, 1959. All three had been transferred to Ward D-23 of Ypsilanti State Hospital a few days before and had been assigned to adjacent beds, a shared table in the dining hall, and similar jobs in the laundry room.*
>
> *It is difficult to convey my exact feelings at that moment. I approached the task with mixed emotions: curiosity and apprehension, high hopes for what the research project might reveal and concern for the welfare of the men. Initially, my main purpose in bringing them together was to explore the processes by which their delusional systems of belief and behavior might change if they were confronted with the ultimate contradiction conceivable for human beings: more than one person claiming the same identity . . .*
>
> *(p. 3)*

Rokeach describes one early encounter among the men ("Leon," "Joseph," and "Clyde"):

> *"As I was stating before I was interrupted," Leon went on, "it so happens that I was the first human spirit to be created with a glorified body before time existed."*
>
> *"Ah, well, he is just simply a creature, that's all," Joseph put it. "Man created by me when I created the world, nothing else."*
>
> *"Did you create Clyde, too?" Rokeach asked.*
>
> *"Uh-huh. Him and a good many others."*
>
> *At this, Clyde laughed.*
>
> *(pp. 10–11)*

Hallucinations Hallucinations are abnormal sensory experiences in which an internally generated perception is perceived as if it were external and real. Hallucinations can occur in any sensory modality: hearing (auditory hallucinations), seeing (visual), smelling (olfactory), tasting (gustatory), or touching (tactile). Auditory and visual hallucinations, in that order, are the most common forms of hallucinations in schizophrenia (Benson et al., 2000). Auditory hallucinations, which are experienced by most people with schizophrenia, usually consist of hearing voices; hallucinations of two or more voices conversing, or of voices giving a running commentary on one's behavior, are especially characteristic of schizophrenia (Morrison & Baker, 2000). Here is one client's description of his auditory hallucinations:

> *For about almost seven years—except during sleep—I have never had a single moment in which I did not hear the voices. They accompany me to every place and at all times; they continue to sound even when I am in conversation with other people, they persist undeterred even when I concentrate on other things, for instance read a book or a newspaper, play the piano, etc.*
>
> *Quoted in Torrey, 2001 (p. 34)*

Delusions and hallucinations can be thought of as severely distorted mental *content*, and, interestingly, the subject matter of psychotic content tends to focus on relatively few themes. As with delusions, the most common themes in hallucinations involve persecution, destruction, sin and punishment, hypochondria (imagined bodily ailments), and grandiosity. In most cases, as this list implies, the content of delusions and hallucinations is emotionally negative, even terrifying, to the individual, but in

"A Geometry of Hallucinations" This painting by Adolph Gottlieb conveys a sense of the perceptual distortions in some visual hallucinations. Gottlieb (1903–1974) was an important figure among American Abstract Impressionist painters.

some cases hallucinations are experienced as comforting and reassuring (Bowins & Shugar, 1998). There is also considerable variation in the extent to which psychotic individuals are aware that they are psychotic (Torrey, 2001). Some know that their hallucinations are not real, whereas others are unable to make this distinction.

Disorganized Speech or Thought As we have seen, delusions and hallucinations are severe aberrations in the *content* of thoughts (delusions) or perceptions (hallucinations). But it is also possible to have severe aberrations in the *process* of thinking or behaving, which are also considered psychotic. For example, severely **disorganized speech or thought** (sometimes referred to as *formal thought disorder*) is considered by many experts to be the central symptom of schizophrenia (APA, 2000) (see Table 12.3 for examples). Schizophrenic speech often sounds like a sequence of logically disconnected thoughts (a symptom known as **loose associations**). In some cases, schizophrenic speech includes other oddities such as **neologisms** (made-up words, like "headvise" for headache), **clang associations** (nonsense sequences of rhyming or like-sounding words, such as "I'm out sprout, shout! Shout me shoot me shoe me shoe! shoe! shoe!"), **echolalia** (repeating verbatim what others say), and **echopraxia** (repeating the gestures of others). At its most extreme, schizophrenic speech can deteriorate into **word salad**—a seemingly random collection of disorganized words. It is not the case, however, that these disorganized thoughts and expressions are meaningless (see Box 12.3 for a discussion of the relationship between psychosis and modern art). After getting to know a person with schizophrenia, it is often possible to decipher the meanings of their garbled communications. Here one client describes her loose associations:

> *My thoughts get all jumbled up. I start thinking about something but I never get there. Instead I wander off in the wrong direction and get caught up with all sorts of things that might be connected with the things I want to say but in a way I can't explain. People listening to me get more lost than I do.*
>
> *Quoted in Torrey, 2001 (p. 47)*

Disorganized speech or thought Severe disruptions in the process of speaking or thinking.

Loose associations A sequence of logically disconnected thoughts.

Neologisms Made-up words, like "headvise" for headache.

Clang associations Nonsense sequences of rhyming or like-sounding words.

Echolalia A speech abnormality in which a person mimics what he or she has just heard.

Echopraxia Repeating the gestures of others.

Word salad A seemingly random collection of disorganized words.

Disorganized behavior This client's disheveled state is an example of disorganized behavior in schizophrenia.
Michael Newman/PhotoEdit

Catatonia Psychomotoric symptoms ranging from extreme immobility and unresponsiveness to extreme agitation.

Waxy flexibility Catatonic symptom in which clients' limbs, often held in rigid posture for hours, can be bent and reshaped as though made of wax.

Affective flattening A reduction or an absence of normal emotion.

TABLE 12.3 Examples of Disorganized Schizophrenic Speech

- I am not artificial. I am life. The theatre is not life. I know the customs of the theatre. The theatre becomes a habit. Life does not. I do not like the theatre with a square stage. I like a round stage. I will build a theatre which will have round shape, like an eye. I like to look closely in the mirror and I see only one eye in my forehead.

  Spoken by the Russian dancer Vaslav Nijinsky, who suffered from schizophrenia, as quoted in Torrey, 2006 (p. 19)

- I have schizophrenia—cancer of the nerves. My body is overcrowded with nerves. This is going to win me the Nobel Prize for medicine. I don't consider myself schizophrenic anymore. There's no such thing as schizophrenia, there's only mental telepathy.

  Quoted in Sheehan, 1982 (p.73)

- [Medication] can kill the space area off if I died, space areas are normally after I died. Cubic space area and nature. That syrup does kill us off if we have it three or four times a day. It does kill us off, it does. Some of it is quite kind but some of it is duff bottles some of it. It deads me off I can't awake all the time, day and night, to take medication all at once.

  Quoted in McKenna, 2001 (p. 171)

Grossly disorganized behavior The DSM-IV-TR identifies *grossly disorganized behavior* as another example of a positive symptom of schizophrenia. This refers to a wide variety of bizarre or disrupted behavioral patterns that can include dishevelment, extreme agitation, uncontrollable childlike silliness, inability to perform simple activities of daily living, and other similar symptoms (APA, 2000). Bizarre *motoric* behaviors are known as **catatonic** symptoms. These can range from extreme immobility and unresponsiveness (known as *catatonic rigidity* and *catatonic stupor*, respectively) to extreme agitation, such as a purposeless flailing, pacing, or spinning *(catatonic excitement)*. Catatonic rigidity sometimes includes an unusual symptom known as **waxy flexibility** in which patients' limbs, often held in rigid posture for hours, can be bent and reshaped as though made of wax (Fink & Taylor, 2001; Peralta & Cuesta, 2001). Interestingly, catatonic symptoms are more common in non-Western cultures than in the United States and other Western countries (Mimica, Folnegovic-Smalc, & Folnegovic, 2001).

Negative Symptoms of Schizophrenia The negative symptoms of schizophrenia (also referred to as *Type II symptoms*) are those in which a deficit—a loss or absence of a normal function—exists. These symptoms are less dramatic than the often bizarre and conspicuous positive symptoms, but they are often more incapacitating in the long run, as they rob people of some basic human attributes—the ability to feel, communicate, and maintain goal-directed behavior (see Table 12.4) (Kirkpatrick et al., 2006; Jogems-Kosterman et al., 2001; Limpert & Amador, 2001; Trumbetta & Mueser, 2001). The negative symptoms of schizophrenia seem to be connected with certain cognitive deficiencies in the areas of attention, focus, and verbal fluency, and researchers are currently exploring these links (e.g., Barch et al., 2005; Milev et al., 2005). The DSM-IV-TR identifies three specific negative symptoms that are particularly characteristic of schizophrenia: *affective (emotional) flattening, alogia*, and *avolition* (APA, 2000).

Affective flattening, a very common symptom of schizophrenia, refers to a reduction or an absence of normal emotion. Schizophrenic clients may appear unresponsive and emotionally blunted, and emotions, if present, are typically restricted in range

BOX 12.3 *Madness and Modernism*

ARE PSYCHOSIS AND MODERN ART RELATED?

In his influential book *Madness and Modernism* (1992), Rutgers psychology professor Louis Sass compares *modernism*, the late nineteenth- and twentieth-century movement in art, literature, and philosophy, to schizophrenic psychosis. His thesis is that some essential features of modern art and literature—such as hyper–self-consciousness and the fragmentation of the self—are also characteristic of schizophrenia. Sass does not argue that modernist culture *causes* schizophrenia (although some experts do argue that schizophrenia was not found before the early nineteenth century), but he does suggest that understanding modernism might help in understanding schizophrenic symptoms. Here are excerpts from his book, along with reproductions of some classic modernist art works that convey a fragmented experience of the world.

The notion that too much consciousness might be a thoroughgoing illness (as Dostoevsky's narrator puts it in *Notes from the Underground*) has been, then, a common enough idea in the last two centuries, yet it has had little impact on the understanding of the psychoses; the truly insane, it is nearly always argued, are those who have failed to attain, or else have lapsed or retreated from, the higher levels of mental life. Nearly always insanity involves a shift from the human to the animal, from culture to nature, from thought to emotion, from maturity to the infantile and the archaic. If we harbor insanity, it is always in the depths of our souls, in those primitive strata where the human being becomes beast and the human essence dissolves in the universal well of desire.

Another possibility does suggest itself, however: What if madness were to involve not an escape, but an exacerbation of that thoroughgoing illness Dostoevsky imagined? What if madness, in at least some of its forms, were to derive from a heightening rather than a dimming of conscious awareness, and an alienation not from reason but from the emotions, instincts, and the body. This, in essence, is the basic thesis of this book.

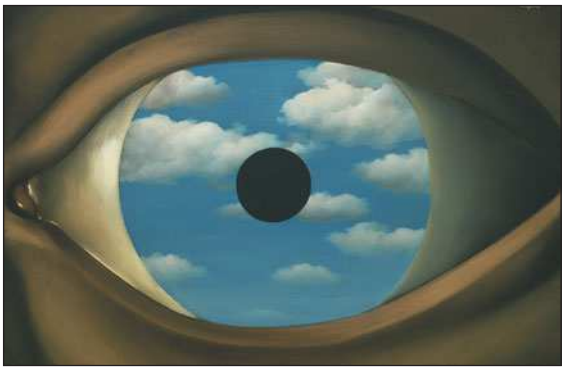
(p. 4)

T. S. Eliot diagnosed the modern condition as a "dissociation of sensibility:" a widening rift between thought and emotion, intellect and sensation, and a general failure to achieve "unification of sensibility." This is remarkably close to Emil Kraepelin's and Erwin Stransky's classic definition of dementia praecox—as "a loss of inner unity of intellect, emotions and volition, in themselves and among one another," or as "disturbances of the smooth interplay" between ideational and emotional layers of the psyche.

(p. 357)

Pablo Picasso, *Violin and Fruit,* 1913. Illustrates simultaneity of different perspectives.

The Philadelphia Museum of Art, The A. E. Gallatin Collection. ©2003 Estate of Pablo Picasso/Artists Rights Society (ARS), New York



René Magritte, *The False Mirror* (1928). This painting is evocative of the schizophrenic experience of a solipsistic universe.

©The Museum of Modern Art/Licensed by SCALA/Art Resource, NY/Artists Rights Society (ARS), NY. Reproduced with permission

Fruit bowl drawn by a schizophrenic patient, evocative of fragmentation. Objects are seen in isolation, separated from one another and from their overall context.

From Arieti, S. (1974). *Interpretation of Schizophrenia*, 2nd ed. (New York: Basic Books, 1974)

TABLE 12.4 Symptoms of Schizophrenia and the Systems They Involve

	SYMPTOM	SYSTEM INVOLVED
Positive Symptoms	Hallucinations	Perceptual
	Delusions	Cognitive
	Disorganized speech	Linguistic
	Disorganized behavior	Behavioral self-regulation
Negative Symptoms	Alogia (decrease in speech)	Speech fluency
	Emotional flattening	Affective
	Avolition (lack of motivation)	Motivational
	Anhedonia (lack of pleasure)	Hedonic (pleasure/pain)

(Adapted from Ho & Andreason, in Breier, 2001, p. 411)

Alogia or **poverty of speech** Minimal or absent verbal communication.

Thought blocking Inability to talk despite trying to do so.

Avolition Reduced or absent motivation.

Anhedonia Loss of a sense of pleasure.

Downward drift The decline in socioeconomic status of individuals with schizophrenia relative to their families of origin.

and often inappropriate to the situation (Alpert et al., 2000; Limpert & Amador, 2001). **Alogia** (from the Greek for "absence of words"), or **poverty of speech**, refers to the paucity of verbal communication in many people with schizophrenia. They may be entirely mute, or prone to giving only short and empty responses to direct questions. Some clients appear to be trying to talk but seem unable to do so, a symptom known as **thought blocking**. **Avolition** refers to a lack of motivation. Many people with schizophrenia find it impossible to initiate or persist in even simple activities such as making a bed or going for a walk. They may sit inactive all day long and show little interest in planful activity or goal-directed behavior.

Another relatively common and devastating negative symptom of schizophrenia is **anhedonia**, the loss of a sense of pleasure. However, anhedonia is not listed as a diagnostic example of negative symptoms of schizophrenia in the DSM-IV-TR, partly because it is a common symptom of depression as well. The major difficulty in assessing negative symptoms in general is to determine whether they are indeed symptoms of schizophrenia or related to other factors such as medication side effects, depression, and the demoralizing living conditions often endured by people with schizophrenia (Galynker, Cohen, & Cai, 2000; Malla, Norman, & Scholten, 2000; Tsuang, Stone, & Faraone, 2000).

Other Diagnostic Criteria In addition to the positive and negative symptoms of schizophrenia, the DSM-IV-TR also lists two additional criteria that relate to the course of the disorder over time and are therefore sometimes referred to as the *temporal criteria*. First, signs of the disorder must be present for at least six months, with at least one month's duration of two or more clear examples of positive or negative symptoms from the five types listed previously (see Table 12.1). When the symptoms last for a briefer time, a different diagnosis applies: these are described in the Other Related Disorders section of this chapter. Schizophrenia, then, tends to have a chronic, rather than an acute, course.

Second, there must be evidence of significant impairment and deterioration over time in an individual's ability to function in his or her social and occupational world (APA, 2000). People with schizophrenia have significant difficulties with work, school, and relationships. For example, 60 to 70% of individuals with schizophrenia never marry, and those who do often report poor quality marriages (Li et al., 2001) and high rates of separation and divorce. Typically, the socioeconomic status of individuals with schizophrenia is below that of their family of origin and of their unaffected parents and siblings—a phenomenon known as the **downward drift** of schizophrenia. This downward drift probably partially accounts for the fact that rates of schizophrenia are sig-

Catatonic behavior This client exhibits the odd, frozen posture seen in some individuals with catatonic symptoms of schizophrenia.
Photo Researchers, Inc.

nificantly higher among lower socioeconomic classes (Byrne et al., 2004; Goldberg & Morrison, 1963; Logdberg et al., 2004; see the Classification in Demographic Context section, and Table 12.7 later in this chapter for more on this topic).

Taken together, these temporal criteria highlight the long-term and downward course typical of schizophrenia and say a good deal about why schizophrenia is such a devastating disorder. But as if this were not enough, individuals with schizophrenia also commonly experience symptoms of anxiety and dissociation. In addition, *comorbidity* with substance abuse may be as high as 50% (Clark, 2001; Hwang & Bermanzohn, 2001; Kamali et al., 2001). Furthermore, the profound cognitive disturbances associated with schizophrenia interfere with clients' awareness that they are not well; individuals with schizophrenia often lack insight into the fact that they have a disorder. This frequently results in noncompliance with treatment, which contributes to relapses and a generally poor course for the disorder (Kamali et al., 2001; Kingsbury & Yi, 2001; Tattan & Creed, 2001).

Subtypes of Schizophrenia How to best categorize subtypes of schizophrenia continues to be a subject of debate, with many alternative typologies being suggested (Fossati et al., 2001; Gutkind et al., 2001; Lucas et al., 2001; Roy et al. 2001). The DSM-IV-TR currently lists five subtypes of schizophrenia (Table 12.5), based on the most prominent symptoms at the time of evaluation. However, there is some debate over the stability of these subtypes (Torrey, 2001).

The **paranoid** subtype, the most common and usually the least severe, refers to cases in which the predominant symptoms are delusions and auditory hallucinations (typically involving paranoid content), with relatively intact cognitive and emotional functioning. The **disorganized** subtype, typically the most severe, is characterized by the prominence of disorganized speech, disorganized behavior, and flat or inappropriate affect. The **catatonic** subtype is marked by strange psychomotoric symptoms, such as rigid physical immobility and unresponsiveness *(catatonic stupor)* or extreme behavioral agitation *(catatonic excitement)*, muteness, and, occasionally, *echolalia* and *echopraxia*. Finally, the DSM-IV-TR includes two additional categories for cases in which none of the first three subtypes apply. If the client clearly meets the general criteria for schizophrenia and yet does not fit into any of the three subtypes above, then the subtype **undifferentiated** applies. If the client has clearly met the criteria for schizophrenia in the past, and there is ongoing evidence of the disorder in the absence

Paranoid schizophrenia The most common subtype, characterized by predominant symptoms of delusions and auditory hallucinations, with relatively intact cognitive and emotional functioning.

Disorganized schizophrenia Typically the most severe subtype, characterized by the prominence of disorganized speech, disorganized behavior, and flat or inappropriate affect.

Catatonic schizophrenia Subtype marked by psychomotoric symptoms, such as rigid physical immobility and unresponsiveness (catatonic stupor) or extreme behavioral agitation (catatonic excitement), muteness, and, occasionally, echolalia and echopraxia.

Undifferentiated schizophrenia Subtype in which clients clearly meet the general criteria for schizophrenia, yet do not fit into any of the other three subtypes.

Residual schizophrenia Subtype in which clients have clearly met the criteria for schizophrenia in the past, and there is ongoing evidence of the disorder but without current psychotic symptoms.

TABLE 12.5 Subtypes of Schizophrenia

SUBTYPE	DEFINING FEATURES
Paranoid	• Prominent delusions or auditory hallucinations.
Disorganized	• Prominent disorganized speech, disorganized behavior, and flat or inappropriate affect.
Catatonic	• Prominent psychomotoric symptoms, such as rigid physical immobility, and unresponsiveness or extreme behavioral agitation, muteness, echolalia, and echopraxia.
Undifferentiated	• Active schizophrenic symptoms that do not fit the paranoid, disorganized, or catatonic subtypes.
Residual	• Following at least one episode of schizophrenia, a state in which there are no prominent positive symptoms of schizophrenia but some negative symptoms and milder positive symptoms remain.

Adapted from APA, 2000

of current psychotic symptoms, the subtype **residual schizophrenia** applies. (Residual schizophrenia is the diagnosis given to David Rosenhan and most of his confederate "pseudopatients" upon discharge from the hospitals to which they were admitted in his study; see Chapter 1.) Residual schizophrenia can occur as a transitional phase when a client is improving after an episode of schizophrenia, but it can also persist as a chronic condition.

Other Related Disorders

Advantages/ limitations of diagnosis

As we have mentioned, many experts believe that schizophrenia is actually a cluster of related disorders rather than a single entity—a viewpoint that touches on the ***advantages and limitations*** of the DSM-IV-TR diagnosis of schizophrenia. Accordingly, some experts refer to what is known as the **schizophrenic spectrum** of disorders—a group of related and overlapping disorders that may have a common etiological basis (Harvard Mental Health Letter, 2005) (see Table 12.6). Disorders considered to be on the schizophrenic spectrum include the schizotypal and paranoid personality disorders (described in Chapter 11). In addition, you may recall that the diagnosis of schizophrenia developed out of the observation that the disorder seemed to follow a different course than mood disorders with psychotic features. However, there are cases in which symptoms of both a mood disorder *and* schizophrenia are present. The DSM-IV-TR provides a diagnosis of **schizoaffective disorder** for these situations (APA, 2000; Benabarre et al., 2001; Jager et al., 2004). The diagnosis of schizoaffective disorder is further specified as either *bipolar type* or *depressive type*, depending on the nature of the mood symptoms (see Chapter 5).

Schizophrenic spectrum A group of related and overlapping disorders that may have a common etiological basis.

Schizoaffective disorder DSM-IV-TR diagnosis involving symptoms of both a mood disorder and schizophrenia.

Schizophreniform disorder DSM-IV-TR diagnosis involving a psychotic episode that has all the features of schizophrenia but has not lasted six months.

Brief psychotic disorder DSM-IV-TR diagnosis involving a psychotic episode that has all the features of schizophrenia but lasts less than one month.

Two additional disorders on the schizophrenic spectrum that are listed in the DSM-IV-TR differ from schizophrenia only in terms of the temporal criteria. **Schizophreniform disorder** involves a psychotic episode that has all the features of schizophrenia but *has not lasted the required six months*. Ultimately, about two-thirds of cases of schizophreniform disorder continue beyond six months, at which point the diagnosis of schizophrenia would apply (Wyatt, 2001). As a result, if the diagnosis of schizophreniform disorder is made before six months have elapsed (that is, not in regard to a prior episode from which the individual has recovered) the diagnosis is listed as "provisional." In cases in which positive symptoms of schizophrenia (delusions, hallucinations, disorganized speech, or grossly disorganized behavior) are present but last *less than one month*, the DSM-IV-TR diagnosis **brief psychotic disorder** applies. The symptoms of brief psychotic disorder may last anywhere from 1 to 30 days, usually with a return to normal, baseline functioning after recovery. Both schizophreniform disorder and brief psychotic disorder appear to be less prevalent than schizophrenia in the United States and other de-

TABLE 12.6 Differences Among Some Disorders on the "Schizophrenic Spectrum"

Schizophrenia ■ Symptoms last at least 6 months.
Schizophreniform disorder ■ Symptoms last between 1 and 6 months.
Brief psychotic disorder ■ Symptoms last less than 1 month.
Delusional disorder ■ Nonbizarre delusions, without other symptoms, lasting at least 1 month.
Shared delusional disorder ■ Delusions that develop in the context of a close relationship with a psychotic person.
Schizoaffective disorder ■ Symptoms of both schizophrenia and a mood disorder.

veloped countries, although they appear to be significantly more common in developing countries (Jablensky, 2000; Mojtabai et al., 2001; Selten et al., 2001).

In some cases, an individual may become delusional over an extended period of time without any other symptoms of schizophrenia. When symptoms are limited to nonbizarre delusions (such as jealous delusions) lasting longer than one month, the DSM-IV-TR classification is **delusional disorder**. In rare cases, an individual will develop delusions, without other psychotic symptoms, in the context of a close relationship with someone else who has a psychotic disorder. This is known as **shared delusional disorder** or **folie à deux** (fo-lee-ah-DU). In these cases, the client is typically in a submissive, long-term relationship with a person with schizophrenia or another psychotic disorder. For example, the child of a father with paranoid schizophrenia may begin to share his father's paranoid delusions.

Delusional disorder DSM-IV-TR diagnosis involving nonbizarre delusions lasting at least one month.

Shared delusional disorder or **folie à deux** DSM-IV-TR diagnosis involving delusions that develop in the context of a close relationship with a psychotic person.

BRIEF SUMMARY

- The DSM-IV-TR defines schizophrenia as a constellation of severe cognitive and behavioral symptoms lasting six months or more and causing significant impairment.
- The main symptoms of schizophrenia fall into two categories: positive or type I and negative or type II. The positive symptoms are pathological excesses—delusions, hallucinations, disorganized speech, thought, and behavior. The negative symptoms are pathological deficits—emotional flatness, loss of motivation, diminished cognitive skills, and withdrawal.
- The DSM-IV-TR lists five subtypes of schizophrenia. Paranoid schizophrenia is diagnosed in cases in which the main symptoms are delusions and hallucinations. Disorganized schizophrenia is diagnosed in cases in which the main symptoms are disorganized speech, behavior, and affect. Catatonic schizophrenia is diagnosed when the main symptoms are in the psychomotor area. If none of these three subtypes clearly applies, the diagnosis is undifferentiated schizophrenia. If an individual is no longer psychotic but still has other ongoing expressions of schizophrenia, the diagnosis is residual schizophrenia.
- Schizophrenia is one of several disorders on the schizophrenic spectrum—a group of related and overlapping disorders that may have a common etiological base. They include schizophreniform disorder (symptoms of schizophrenia for one to six months),

Progress and hope
Until relatively recently, clients with schizophrenia were often "warehoused" in substandard hospitals, such as the one shown here, with little hope of improvement. The past fifty years have brought enormous progress in the treatment of schizophrenia.
Carl Mydans/Time Life Pictures/Getty Images News and Sport Services

Schizophrenia and Social Class
Schizophrenia is more common among the urban poor, such as this homeless man, due to socioeconomic stresses and "downward drift."

The importance of context

brief psychotic disorder (symptoms of schizophrenia for less than one month), delusional disorder (nonbizarre delusions lasting more than one month, without other symptoms of schizophrenia), shared delusional disorder (the development of delusions in the context of a close relationship with a psychotic individual), schizoaffective disorder (a combination of symptoms of schizophrenia and mood disorders), and the schizotypal and paranoid personality disorders (Chapter 11).

Classification in Demographic Context

The epidemiology and course of schizophrenia vary considerably depending on several demographic variables (Peralta & Cuesta, 2000; Vocisano et al., 1996), as we describe in detail below.

Class and Culture

As we have seen, most experts estimate the lifetime prevalence of schizophrenia at around 1% of the population worldwide (Harrap & Trower, 2001; Jablensky, 1997). However, the prevalence of schizophrenia is notably higher in certain demographic groups, such as second-generation African Caribbeans in Great Britain, and people of African heritage in London and in the United States (Baker & Bell, 1999; Bhugra et al., 1997). The latter difference is probably an artifact of the overall higher rates of schizophrenia in lower socioeconomic groups (with lifetime risk as high as 2%) in which African Americans are disproportionately represented (Dohrenwend et al., 1998; Keith, Regier, & Rae, 1991).

Indeed, severe socioeconomic stress may be a contributing cause of schizophrenia (see the Family Systems and Sociocultural Components section later in the chapter), explaining, along with the *downward drift* in socioeconomic status of many schizophrenic individuals, the positive correlation between low socioeconomic status and higher rates of the disorder (see Table 12.7) (Byrne et al., 2004; Levav et al., 1998). Interestingly, the long-term outcome of schizophrenia is significantly better in "developing" as opposed to industrialized countries, although the cause of this difference is unknown (Jablensky, 2000).

Other risk factors for schizophrenia include slightly higher rates of the disorder among persons born in urban areas (Byrne et al., 2004; Krabbendam et al., 2004; Mueser et al., 2001; Svedberg, Mesterton, & Cullberg, 2001) and slightly lower rates for later-born siblings (APA, 2000). Overall, however, the greatest risk factors involve having biological relatives with schizophrenia or other disorders on the schizophrenic spectrum.

TABLE 12.7 Downward Drift in Schizophrenia

The downward socioeconomic drift of schizophrenic patients between the ages of 25 and 34 in England and Wales in the 1950s is shown here. As you can see, almost all of these patients were categorized as in the middle and lower classes when they were admitted to hospitals, and, on average, they had "drifted down" below the ratings of their fathers and brothers.

SOCIAL CLASS	PATIENTS (%)	THEIR FATHERS (%)	THEIR BROTHERS (%)	CENSUS NORMS (%)
Higher (classes 1 and 2)	4	29	21	16
Middle (class 3)	48	48	56	58
Lower (classes 4 and 5)	48	23	23	27

Gottesman, 1991, p. 78, after Goldberg & Morrison, 1963

Age and Gender

In general, the course of schizophrenia has three phases, although not all cases follow this pattern exactly: (1) **prodromal** (developing); (2) **active** (psychotic symptoms); and (3) **residual** (no longer psychotic but still showing signs of schizophrenia) (APA, 2000). Onset can occur as early as 5 years of age, although the disorder is rare before adolescence (Howard et al., 2000). Late onset, even among those over 60, is possible, and occurs more often among women (Coleman & Gillburg, 1996; Howard et al., 2000). The onset of schizophrenia can be sudden—over a matter of days—or there may be a gradual prodromal phase as in the case of Peter. Over time, three characteristic long-term patterns of schizophrenia have been observed: (1) occasional episodes with good recovery (if the episodes do not last six months, then diagnoses of schizophreniform disorder or brief psychotic disorder would apply); (2) occasional episodes with some gradual deterioration; and (3) chronic symptoms with steady *downward drift* (an der Heiden & Haefner, 2000; Gaebel et al., 2000; Harrison et al., 2001; Mojtabai et al., 2001). Unfortunately, about 60% of people with schizophrenia follow the last, chronic course, and relatively few experience the first of the three patterns with full recovery (an der Heiden & Hafner, 2000). The course of schizophrenia differs by age and gender. Despite the fact that schizophrenia occurs roughly equally across genders (with slightly higher rates for men), it follows a somewhat different pattern in men and women (Harvard Mental Health Letter, 2005; Raesaenen et al., 1999). For instance, the median age of onset of schizophrenia is later for women than for men. Men tend to have first episodes in their early 20s, while for women onset more often occurs in their late 20s (APA, 2000). Also, women tend to have somewhat better premorbid (pre-illness) levels of functioning and fewer negative symptoms (Roy et al., 2001).

Interestingly, all of the variables associated with schizophrenia in women (later onset, better premorbid functioning, and fewer negative symptoms) are also associated with better prognosis (an der Heiden & Hafner, 2000; Goldstein, 1995; McGurk et al., 2000; Siris, 2001). Other variables associated with a better prognosis include relatively acute onset in the context of stressful events; early detection and treatment; prominent mood symptoms; normal neuropsychological findings; compliance with treatment; family history of mood disorders rather than schizophrenia; and lack of substance abuse (Blanchard et al., 2000; Gross, 1997).

Prodromal phase The first stage of schizophrenia in which symptoms are developing.

Active phase The second phase of schizophrenia, involving psychotic symptoms.

Residual phase The third stage of schizophrenia, in which the individual is no longer psychotic but still shows signs of the disorder.

BRIEF SUMMARY

- Schizophrenia develops in about 1% of the population worldwide, but the prevalence and course of the disorder differ across different demographic groups. For example, the rate of schizophrenia is almost twice as high among the urban poor, either because the stress of urban poverty can be a contributing cause of the disorder, because people with schizophrenia experience a socioeconomic *downward drift*, or both.
- The course of schizophrenia is usually divided into three phases: prodromal (developing), active (psychotic), and residual (no longer psychotic but still affected). The onset of schizophrenia is usually in early adulthood, although it can be earlier or much later.
- Schizophrenia manifests itself differently in men and women. Men tend to have slightly higher rates of the disorder, earlier onset, more negative symptoms, and a poorer course and outcome.

EXPLAINING AND TREATING SCHIZOPHRENIA

The understanding and treatment of schizophrenia have come a long way in a relatively short time. As recently as the 1950s, explanations of schizophrenia were rudimentary and most individuals with schizophrenia endured the disorder without hope of effective

treatment (Cooper, 1999). Now, dozens of promising explanatory theories are being actively researched, and many useful treatments are available that help most clients. However, experts in the field agree that there is still a long way to go. We do not yet have a comprehensive understanding of the etiology of schizophrenia, or even whether schizophrenia is a single disorder. The treatments for schizophrenia, though better than ever, are far from cures. And among other formidable obstacles to research on schizophrenia, most research subjects with the disorder have been medicated and/or hospitalized, adding confounding variables to the search for the essence and causes of schizophrenia (Hardy et al., 2001; Keefe & McEvoy, 2001). As a result, while reviewing the various models of explanation and treatment, we will highlight both the answers that have been found and the many questions that still remain. As we have seen, the pioneers who developed and refined the diagnosis of schizophrenia around the turn of the twentieth century were mostly medical scientists, like Kraepelin, who firmly believed that the disorder was essentially biological—caused by a diseased brain—and probably of genetic origin (Athanasiadis, 1997; DeLisi, 1997). Biological research on schizophrenia during the first half of the twentieth century seemed to support this view, as abnormalities in the brain structure of people suffering from schizophrenia were discovered (Johnstone, 1994). However, much of this research was conducted by German scientists working during the Nazi era and was tainted by the ethical outrage over Nazi medical experiments. Partly in reaction to this, the biological approach to explaining and treating schizophrenia took a back seat to psychological approaches in the post–World War II period (Johnstone, 1994). In the 1970s, biological research regained momentum, and in the decades since then the biological perspective has dominated explanations and treatments for schizophrenia. (The biological perspective on schizophrenia also has its critics: see Box 12.4.) Accordingly, we begin our review by describing the biological components of and interventions for schizophrenia. However, we will see that the state-of-the-art explanations and treatments of schizophrenia involve combining components from multiple theoretical perspectives. Because of its importance in understanding schizophrenia, we will return to the core concept of ***multiple causality*** at the end of the chapter.

Biological Components

In order to organize the enormous amount of information now available on the biological aspects of schizophrenia, it is helpful to distinguish between the immediate (or *proximal*) causes of the symptoms of schizophrenia and the predisposing (or *distal*) causes of the disorder. The proximal causes of the symptoms involve various abnormalities in brain function, brain structure, and neuropsychological/neurophysiological status that may cause schizophrenic symptoms (though it is also possible that some of them are *effects*, not causes, of schizophrenia). The distal factors involve possible answers to the question: What are the *underlying* causes—for example, genetic or viral—of schizophrenia?

Proximal Causes

Brain Function Abnormalities Biological researchers have long been interested in links between the symptoms of schizophrenia and neurochemical abnormalities. In recent years, brain imaging techniques such as positron emission tomography (PET scans), single-photon emission computed tomography (SPECT), and magnetic resonance spectroscopy (MRS) have provided powerful new tools for studying the functioning of the schizophrenic brain.

Several abnormalities in brain function appear to be associated with schizophrenia. For example, studies have shown a general decrease in activity in the prefrontal cortex (anterior region of the frontal lobe)—a syndrome known as **hypofrontality**—that seems to be particularly associated with the negative symptoms of schizophrenia (Berman & Meyer-Lindenberg, 2004; Keshavan, Stanley, & Pettegrew, 2000). Studies have also

Hypofrontality A general decrease in activity in the prefrontal cortex.

BOX 12.4 The Recovery Movement

"WE'VE BEEN MISLED BY THE DRUG INDUSTRY" *by Daniel B. Fisher*

Fueled by discoveries during the 1990s "decade of the brain," the biological perspective on schizophrenia has become dominant, but it is not without critics. In this article, Dr. Daniel Fisher, a biochemist and psychiatrist who himself suffered from schizophrenia, challenges reductionistic biological approaches to the disorder and the drug companies that seem to support them. His perspective is similar to others in the "recovery movement," who argue that full recovery from schizophrenia is possible, in contrast to the views of some biological theorists.

I have recovered from schizophrenia. If that statement surprises you—if you think schizophrenia is a lifelong brain disease that cannot be escaped—you have been misled by a cultural misapprehension that needlessly imprisons millions under the label of mental illness.

In the last 20 years, the pharmaceutical industry has become the major force behind the belief that mental illness is a brain disorder and that its victims need to take medications for the rest of their lives. It's a clever sales strategy: If people believe mental illness is purely biological, they will only treat it with a pill.

Drug companies have virtually bought the psychiatric profession. Their profits fund the research, the journals and the departments of psychiatry. Not surprisingly, many researchers have concluded that medication alone is best for the treatment for mental illness. Despite recent convincing research showing the usefulness of psychotherapy in treating schizophrenia, psychiatric trainees are still told "you can't talk to a disease." This is why psychiatrists today spend more time prescribing drugs than getting to know the people taking them.

I, too, used to believe in the biological model of mental illness. Thirty-one years ago, as a Ph.D. biochemist with the National Institute of Mental Health, I researched and wrote papers on neurotransmitters such as serotonin and dopamine. Then I was diagnosed with schizophrenia—and my experience taught me that our feelings and dreams cannot be analyzed under a microscope.

Despite what many people assume when they hear about my recovery, that original diagnosis was no mistake: It was confirmed by a board of six Navy psychiatrists after my four-month inpatient stay at Bethesda Naval Hospital. I was devastated by being branded a schizophrenic. My life seemed over. Six years later, however, I had defied everyone's expectations and recovered. The most important elements in my recovery were a therapist who believed in me, the support of my family, steadfast friends and meaningful work. And I had a new goal: I wanted to become a psychiatrist. My therapist validated that dream, saying, "I will go to your graduation." (When I received my degree from George Washington University Medical School in 1976, he was there.) Drugs were a tool I used during crises, but I have been completely off medication for 25 years.

I am not an anomaly. Thousands of others have recovered, but are afraid to disclose their past due to the stigma of mental illness. The definitive Vermont Longitudinal Study, led by Courtenay Harding, followed 269 patients diagnosed in the late 1950s with severe schizophrenia. Three decades later, Harding found that two-thirds of them were living and functioning independently; and of those, half were completely recovered and medication-free.

The Swiss psychiatrist Manfred Bleuler—whose father, Eugen, coined the term schizophrenia in 1908—obtained similar results. His father had mistakenly concluded that people did not recover from schizophrenia—because he rarely saw his patients after discharge. Our own research at the National Empowerment Center (NEC), funded by the federal Center for Mental Health Services, shows that the most important factor in recovery from mental illness is people who believe in patients and give them hope: medications are a less important factor.

But that is not how psychiatrists are being taught; recently I was reminded of how tightly training is controlled. I contacted a colleague at a major West Coast medical school to see if he could get me an invitation to conduct one of their teaching rounds. He apologetically told me that he couldn't: since he had published a critique of the biological model of mental illness, demonstrating that people could recover from schizophrenia without medication, he himself was no longer allowed to speak to the residents in training—even though he was on the faculty.

The pharmaceutical industry also controls the public's education. Who can avoid the TV image of the phobic man who needs Paxil to socialize? Industry-funded research and experts have a huge impact on media coverage. Finally, the drug companies have taken advantage of well-intentioned advocacy groups who support the biological model of mental illness—and they give those groups much-needed financial support.

Schizophrenia is more often due to a loss of dreams than a loss of dopamine. At the NEC, we try to reach out across the chasm of chaos. I know there are many people who feel they have done all they can, have struggled against mental illness to no avail, and we understand their pain. Yet we believe that recovery is eventually possible for everyone—although it can take a long time to undo the negative messages of past treatments. We can offer hope from first-hand experience.

Addressing the needs of people with mental illness will require a large-scale retraining of mental health workers, decision makers, families and the public. There will need to be more research into the ways that people recover. There will need to be more jobs, housing, peer support and self-help, for these are the pathways to self-determination and independence. And there needs to be a cultural shift toward people rather than pills to alleviate this form of human suffering.

The Washington Post, August 19, 2001, p. B03

suggested altered cell membrane metabolism and changes in neuron size and density in the prefrontal region of the brain (Cho et al., 2004; Stanley, Pettegrew, & Keshavan, 2000; Vance et al., 2000).

Perhaps the most prominent findings regarding brain function and schizophrenia focus on abnormal neurotransmission. Neuroimaging and postmortem studies have shown abnormalities in several neurotransmitter systems of people with schizophrenia, including the **dopamine**, **glutamate**, **serotonin**, and **gamma-aminobutyric acid (GABA)** systems (Dean, 2000; Krystal et al., 2004; Taber et al., 2001). The dopamine system has been at the heart of biological research on schizophrenia for many years. Interest in the dopamine system began in the 1950s when French researchers discovered that the drug chlorpromazine, an antihistamine being tested as a sedative, appeared to eliminate delusions and hallucinations in psychotic patients (Delay & Deniker, 1952; Sandler, 1999).

When these drugs were introduced to treat schizophrenia, it became evident that they often caused side effects known as **parkinsonism**, the stiffness and tremors associated with Parkinson's disease. Since parkinsonism had been found to be caused by a reduction in dopamine in the basal ganglia, it was logical to assume that chlorpromazine and other similar antipsychotic (or **neuroleptic**) drugs might also be creating their antipsychotic effects by reducing the availability of dopamine in the brain. Several lines of evidence support this **dopamine hypothesis**. Carlsson and Lindqvist (1963) demonstrated that neuroleptic drugs did indeed affect the dopamine system, and they hypothesized that their antipsychotic action was due to their ability to block dopamine receptor sites. Furthermore, L-DOPA, a dopamine precursor used to alleviate parkinsonian symptoms, can cause psychosis with overuse (Friedhoff & Silva, 1997; Sandler, 1999). Similarly, stimulant drugs such as amphetamines and cocaine will produce psychosis in overdose, partly by blocking dopamine reuptake and thereby causing excess dopamine transmission. (Krystal et al., 2004; Sandler, 1999; Schlemmer,Young, & Davis, 1996). (See Table 12.8 for a selected list of drugs that can induce schizophrenia-like psychosis.) Finally, it was discovered that many individuals with schizophrenia, particularly those with a preponderance of positive psychotic symptoms, had an excess of

Dopamine A neurotransmitter thought to be specifically related to positive symptoms of schizophrenia and to pleasure regulation.

Glutamate A neurotransmitter involved in schizophrenic symptoms and many other functions.

Serotonin A neurotransmitter associated with depression, anxiety, and schizophrenia.

Gamma-aminobutyric acid (GABA) A neurotransmitter that suppresses nervous system activity.

Parkinsonism The stiffness and tremors associated with Parkinson's disease.

Neuroleptic Another name for an antipsychotic medication.

Dopamine hypothesis The hypothesis that excess dopamine transmission causes the psychotic symptoms of schizophrenia.

TABLE 12.8 Selected Drugs That Can Induce Schizophrenia-like Psychosis

Alcohol (withdrawal hallucinosis)	Digitalis
Amantadine	Disulfiram (Antabuse)
Amphetamine (speed, crank, crystal, ice)	Ephedrine
	Ibuprofen (Motrin)
Atropine	Indomethacin
Bromide	Isoniazid
Bromocriptine	Levodopa
Cannabis (marijuana)	Lidocain
Carbon monoxide	LSD
Chloroquine	Methamphetamine
Cimetidine	Monoamine oxidase (MAO) inhibitors
Clonidine	Pentazocine (Talwin)
Cocaine (and crack)	Phencyclidine (PCP, angel dust)
Corticosteroids (adrenocorticotropic hormone, cortisone, etc.)	Phenelzine (Nardil)
	Propanolol (Inderal)
Dexatrim	Propoxyphene (Darvon)
Diazepam (Valium)	Tricyclic antidepressants

Gottesman, 1991, p. 29

dopamine receptors in the brain, particularly a variety known as **D2 receptors** (Abi-Dargham, 2004; Faustman, 1995; Poewe, 2003).

D2 receptors Receptors involved in dopamine transmission that are thought to play a role in symptoms of schizophrenia.

Ventricles Fluid-filled cavities in the brain.

For many years, the dopamine hypothesis held sway as the leading explanation of the positive symptoms of schizophrenia. Currently, however, researchers regard the dopamine hypothesis as only a partial explanation of the positive symptoms of schizophrenia for several reasons. First, not all individuals with schizophrenic psychosis respond to dopamine-reducing antipsychotic medications, and even when antipsychotics are effective there is some delay in the effects even though the dopamine blockade begins immediately. Second, antipsychotic medications can be used to treat psychosis of any origin, not just schizophrenic psychosis (Chou et al., 2001; Currier & Simpson, 2001; Salzman, 2001). Third, the development of new antipsychotic medications that affected different neurotransmitter systems made it clear that multiple neurotransmitters are involved in schizophrenic psychosis (Abi-Dargham et al., 1998; Lewis et al., 1999; Weinberger, 2004).

The most recent modifications of the dopamine hypothesis emphasize two factors: (1) the role of the neurotransmitter *glutamate* in causing changes in dopamine transmission, and (2) the different dopamine pathways affected in schizophrenia. One hypothesis suggests that glutamate, an excititory neurotransmitter active along the pathway between the prefrontal cortex and the subcortical limbic system, becomes overactive in the prefrontal cortex in schizophrenia. This might be the cause of the sensory "flooding" experienced in schizophrenia, which in turn could trigger negative symptoms such as cognitive deficits (Harvard Mental Health Letter, 2006). At the same time, glutamate overactivity may stimulate excessive dopamine activity in the limbic system (along with what is referred to as the *mesolimbic pathway*), leading to positive symptoms (Stahl, 2005). It has also been suggested that *decreased* dopamine transmission on another pathway, the *mesocortical pathway* to the prefrontal cortex, might be a factor contributing to negative symptoms (Abi-Dargham, 2004). (These dopamine pathways, and two others that are affected by the drugs used to treat schizophrenia, are described and illustrated in the Chapter 12 Visual Essay.) Finally, researchers are now exploring the possibility that medications that can stimulate receptor sites for another neurotransmitter, NMDA (N-methyl-D-aspartate), might help normalize glutamate activity, thereby stopping the process that ultimately triggers both the negative and positive symptoms of schizophrenia.

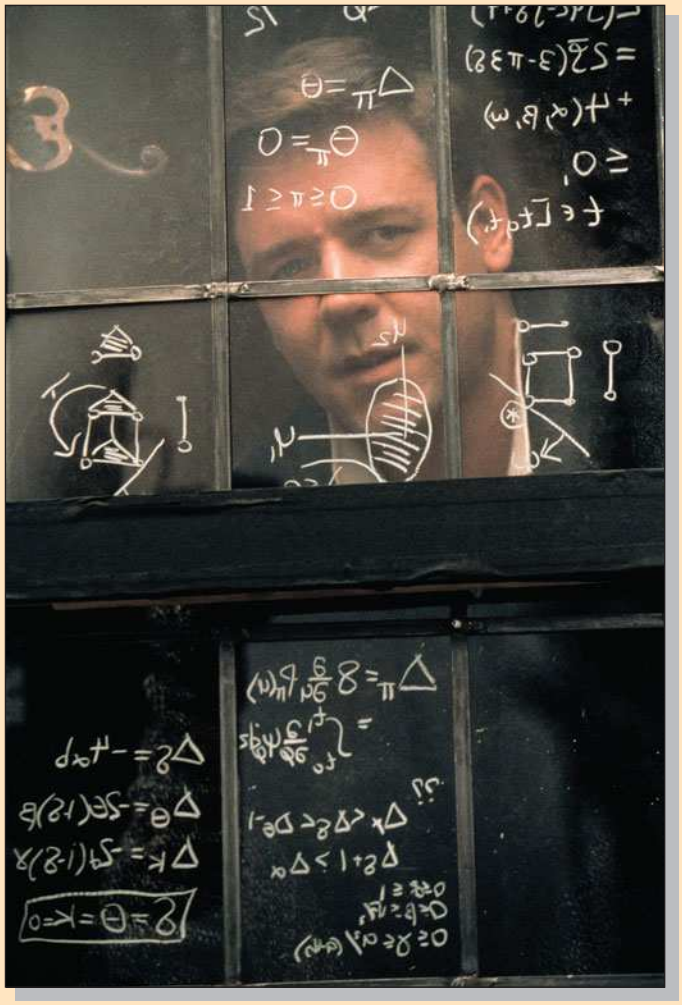
Brain Structure Abnormalities In addition to looking for abnormalities in brain function and metabolism, researchers have also investigated whether the brains of people with schizophrenia are anatomically or structurally different from the brains of normal individuals. Brain imaging techniques such as computed tomography (CT) and magnetic resonance imaging (MRI) provide a way of looking at the structure of the living brain and thereby augment postmortem research on the brains of deceased people who had schizophrenia. One of the earliest and most robust findings in this area is an association between enlarged lateral **ventricles** (fluid-filled cavities in the brain) and schizophrenia, particularly in cases with prominent negative symptoms (Chua & McKenna, 2000; Weinberger, 2004) (see Figure 12.2). While the differences in ventricle size between clients with schizophrenia versus control groups are relatively small and subtle (Shenton et al., 2001), they may indicate a loss of brain tissue in schizophrenia, possibly due to reduced blood flow to the brain (Molina et al., 2002). These findings are consistent with the proposal originating from Crow (1980, 1985), to distinguish between the Type I and Type II aspects of schizophrenia, the former consisting of increased D2 dopamine receptors associated with the positive symptoms of schizophrenia, and the latter consisting of enlarged ventricles and a loss of cortical tissue associated with the negative symptoms (Wyatt, 2001). As we have discussed, most individuals with schizophrenia have a combination of both Type I (positive) and Type II (negative symptoms), but the relative preponderance of each varies across cases (Crow, 1995).

CHAPTER 12

VISUAL ESSAY

Dopamine Pathways in Schizophrenia

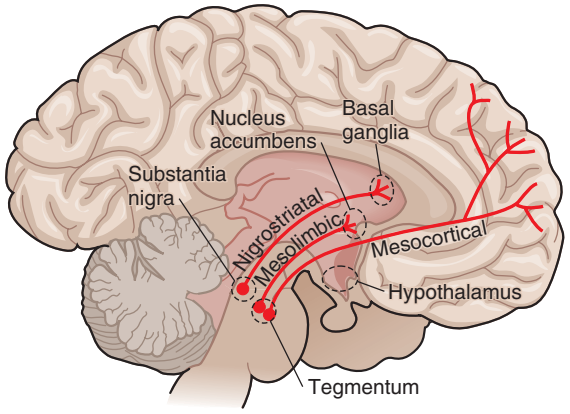
As summarized in Table 12.2, schizophrenia involves Positive/Type I symptoms including delusions, hallucinations, and disorganized speech, thought, and behavior, along with Negative/Type II symptoms such as flat affect, loss of motivation, and poverty of speech. The dopamine hypothesis provides explanations for some of these symptoms in terms of different brain pathways that involve dopamine transmission [see figure(a)]. Positive symptoms are thought to be due to an excess of dopamine in the *mesolimbic pathway*, a pathway involving the limbic system. Another dopamine pathway, the *mesocortical pathway*, affects the frontal regions of the brain. It is hypothesized that decreased transmission of dopamine along this pathway may lead to negative symptoms such as cognitive deficits. Another dopamine pathway less directly implicated in the symptoms of schizophrenia but affected by drugs used to treat it is the *nigrostriatal pathway*. The nigrostriatal pathway involves the basal ganglia, a structure that controls motor movements. When dopamine is in excess in the nigrostriatal pathway, as is thought to be the case in schizophrenia, it may cause tics and other problems with involuntary muscle movement. In contrast, individuals with Parkinson's disease have dopamine deficiencies in the nigrostriatal pathway causing muscle rigidity, tremors, and difficulty initiating movement. Thus, when individuals with schizophrenia are treated with dopamine blockers to reduce positive symptoms, they risk inducing unwanted *neuroleptic-induced Parkinsonian* symptoms. Although there have been vast improvements in the development of pharmacological treatments for schizophrenia in order to maximize benefits and minimize side effects, most individuals with schizophrenia remain moderately to severely affected by the disorder even with good treatment.



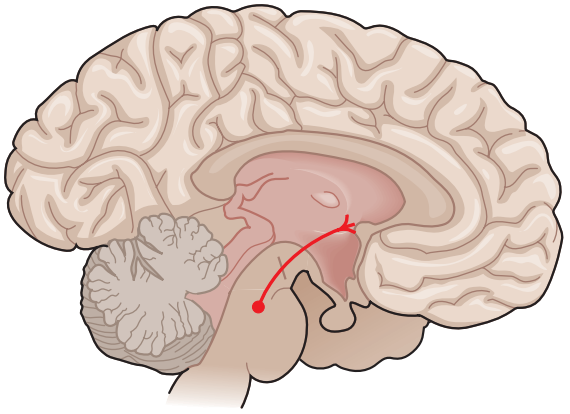
True Story Russell Crowe portrays the life of John Forbes Nash Jr., the brilliant Nobel Prize winning mathematician who struggled with schizophrenia, in the award-winning film *A Beautiful Mind* (2001). The film was widely praised for its realistic and sympathetic portrayal of the disorder.

Dopamine Pathways Implicated in Schizophrenia

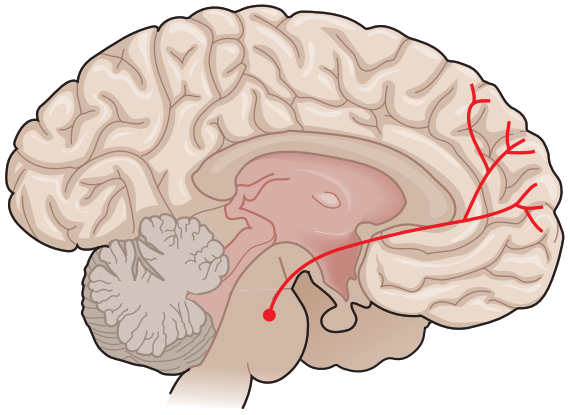
Pathway	Image	Location and Function	Dysfunction in Schizophrenia	Drug Effects
Mesolimbic Pathway	See Figure (b)	Projects from the midbrain ventral tegmental area to the nucleus accumbens.	Excess dopamine in this pathway is thought to cause positive symptoms, such as delusions and hallucinations.	Dopamine blockers inhibit dopamine in this pathway, thereby reducing positive symptoms.
Mesocortical Pathway	See Figure (c)	Projects from the midbrain ventral tegmental area to the frontal regions of the brain.	Deficient dopamine in this pathway is thought to cause negative symptoms, such as flat affect and alogia.	Dopamine blockers inhibit dopamine in this pathway thereby potentially increasing negative symptoms such as apathy and anhedonia.
Nigrostriatal Pathway	See Figure (d)	Projects from the substantia nigra to the basal ganglia.	Excess dopamine in this pathway is thought to cause odd motor movements, such as tics.	Dopamine blockers in this pathway may result in *neuroleptic induced Parkinsonian* symptoms, such as muscle rigidity, shuffling gait, tremor, and restlessness. Long-term administration of dopamine blockers in this pathway can lead to an irreversible movement disorder, *tardive dyskinesia*, that causes facial grimacing, tongue protrusion, and jerky muscle movements.



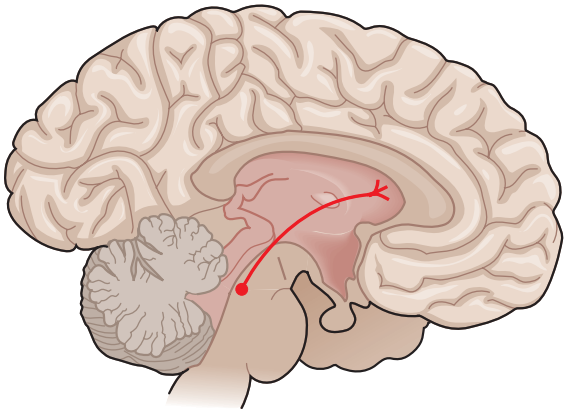
(a) Dopamine pathways



(b) Mesolimbic pathway



(c) Mesocortical pathway



(d) Nigrostriatal pathway

Adapted from *Essential Psychopharmacology: Neuroscientific Basis and Practical Application*, 2nd edition (2005), Stephen M. Stahl, Cambridge University Press

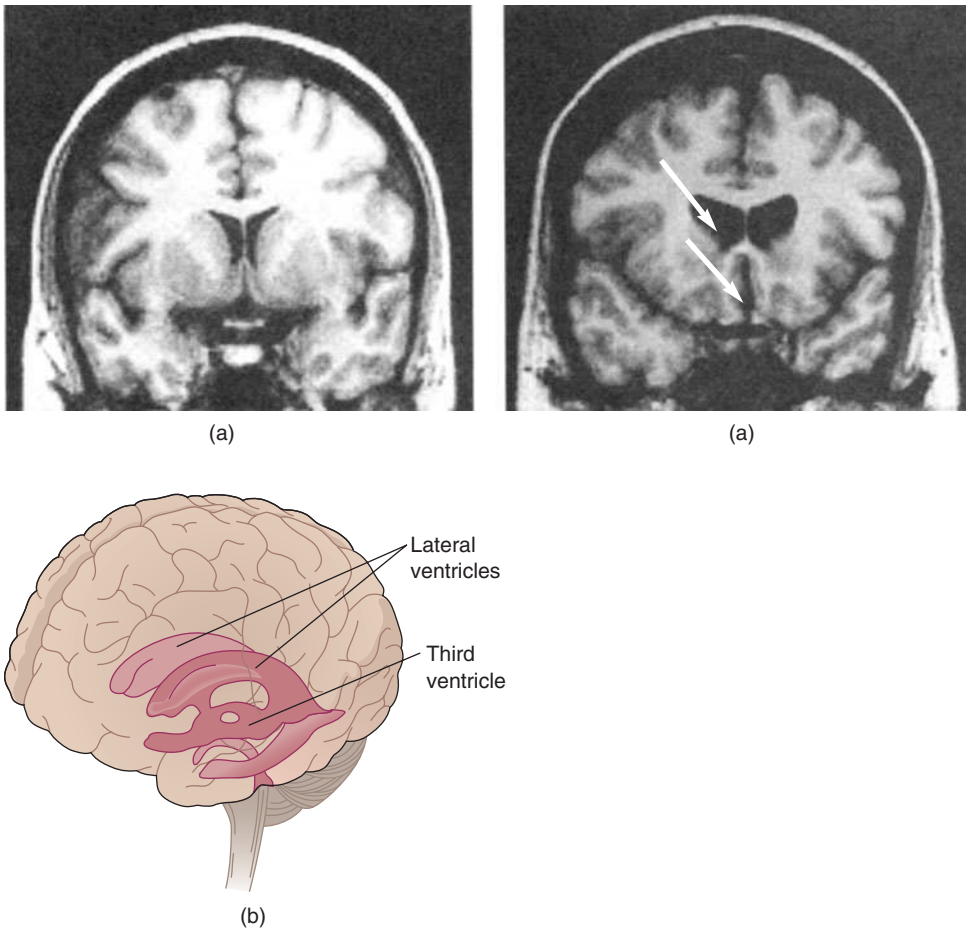


Figure 12.2 Increased Ventricle Size in Schizophrenia as Seen in Magnetic Resonance Imaging (MRI) Brain Section (a) These magnetic resonance imaging (MRI) scans show the increased ventricle size in a patient with schizophrenia (*right: top arrow,* lateral ventricles; *bottom arrow*, third ventricle) compared to a healthy control *(left)*. (b) A view of the brain showing the location of the ventricles.
(a) From Lieberman et al., *The American Journal of Psychiatry*, 1992, © 1998, The American Psychiatric Association. Reprinted by permission.
(b) From Schultz & Andreason, 2000

Other neuroanatomical findings in schizophrenia include a decrease in the size of the temporal lobe (especially in the medial temporal structures such as the hippocampus and the amygdala), and abnormalities in the frontal and parietal lobes (Niznikiewiecz et al., 2003; Shenton et al., 2001). In particular, cell membrane degradation has been seen in the prefrontal cortex, and decreases in the mass of neuronal cells have been found in the hippocampus and other areas (Cho et al., 2004; Stanley et al., 2000; Taber et al., 2001). Finally, some studies have indicated abnormalities in subcortical structures such as the corpus callosum and the thalamus (Cho et al., 2004; Ettinger et al., 2001; Shenton et al., 2001) (see Figure 12.3). Some researchers suggest that the neuroanatomic changes seen in the MRIs of schizophrenic brains suggest an abnormality in large brain "networks" that connect the prefrontal cortex with the limbic system (Andreason, 1999; Harvard Mental Health Letter, 2005), such as the networks described above in the section on neurotransmission.

Neuropsychological and Neurophysiological Abnormalities Clients with schizophrenia show a variety of neuropsychological deficits that cause impairments in functioning and contribute to the development and maintenance of negative symptoms such as *avolition, alogia,* and *anhedonia* (Addington & Addington, 2000; Barch et al., 2005; Bilder et al., 2002; Milev et al., 2005). Cognitive abilities such as verbal fluency, learning, memory, attention, and psychomotor skills are all reduced compared to those of control subjects (Hoff et al., 2003; Zakzanis et al., 2000b), consistent with neuroanatomical research suggesting abnormalities in the frontal and temporal lobes of the brain (Centis et al., 1997). Interestingly, similar frontal and temporal lobe deficits are also found in healthy close relatives of individuals with schizophrenia, suggesting that

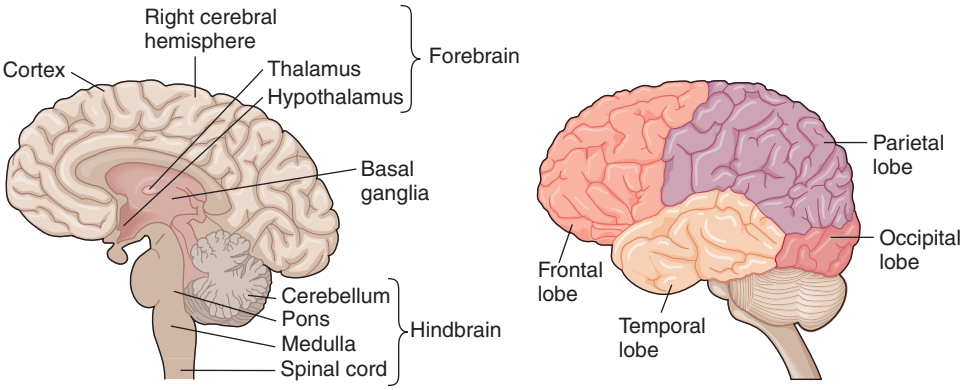


Figure 12.3 The Brain Brain structures that play important roles in schizophrenia. (a) Internal structures of the brain. (b) The four lobes of the brain

such deficits may constitute a necessary but not sufficient risk factor for the disorder (APA, 2000; Cannon et al., 2006). People with schizophrenia have difficulty processing sensory input, and often describe feeling "flooded" with stimulation (Hetrick & Smith, 2000). This deficit is known as **impaired sensory gating**. One client described such "flooding" as follows:

Impaired sensory gating Difficulty processing sensory input.

> *Sometimes when people speak to me my head is overloaded. It's too much to hold at once. It goes out as quick as it goes in.*
>
> *Quoted in Torrey, 2001 (p. 37)*

In addition, researchers have found *neurophysiological* differences between individuals with schizophrenia and control subjects. Individuals with schizophrenia often show abnormal visual tracking (visually following moving objects), slow reaction times, and abnormal brain wave patterns (as measured by electroencephalograms) (Hong et al., 2005; Laurent et al., 2000; Silver et al., 2002). However, many of the neurophysiological signs found in schizophrenia are also found in people with mood disorders, so they are not uniquely associated with schizophrenia (Boks et al., 2000).

Distal Causes

Researchers are especially interested in discovering the underlying causes of the brain function, brain structure, and neuropsychological abnormalities in schizophrenia. Several theories have been proposed at this level, focusing on everything from genetic,

Impaired sensory gating Many individuals with schizophrenia describe feeling constantly "flooded" by overwhelming stimuli, much as normal individuals might feel in an overstimulating environment like the trading floor of a stock exchange or Times Square in New York.
(Left) ©AP/Wide World Photos
(Right) Rudi Von Briel/Photoedit

viral, nutritional, and chemical variables to physical injuries and traumatic emotional experiences (Torrey et al., 1997). We will focus on the major biological theories.

One overarching concept is the growing consensus that schizophrenia is a *neurodevelopmental* disorder rather than a *neurodegenerative* disorder, as was suggested by Kraepelin and others (Harvard Mental Health Letter, 2005). In other words, it appears that the brain abnormalities present in schizophrenia begin early in life—even though they may not be evident until later when the disorder appears—rather than stemming from a degenerative process in which a healthy, normally developed brain begins to deteriorate. Studies suggest that the cognitive abilities of people with schizophrenia, for example, are already deficient at the onset of their illness, and do not decline further (Censits et al., 1997). Some researchers refer to a latent *vulnerability* for the disorder that may or may not progress into full-blown schizophrenia. The renowned psychologist Paul Meehl (1990) refers to such potential as **schizotaxia**. Schizotaxia—or *schizotypy*, its visible manifestations (Lenzenweger, 2006)—is characterized by mild negative symptoms, deviant eye tracking, and abnormalities in brain structure and neuropsychological function, but not necessarily by psychosis (Tsuang et al., 2000; Tsuang, Stone, & Faraone, 2001).

Schizotaxia A latent vulnerability for developing schizophrenia that may or may not progress into full-blown schizophrenia.

A second area of consensus concerning the predisposing biological causes of schizophrenia is that they include both genetic and environmental biological factors. Possible environmental causes include some surprising candidates. For example, over 250 studies across 39 countries demonstrate that children born during the winter or spring have a slightly higher chance of developing schizophrenia (Carrion-Barralt et al., 2006; Torrey et al., 1997). This is true of only a few other mental disorders, including bipolar disorder, schizoaffective disorders, major depression, and autism (Torrey et al., 1997). While the meaning of this pattern is not yet understood, possibilities include exposure to viruses more common in the winter months that could affect brain development during gestation, seasonal nutritional changes, seasonal toxins, effects of temperature changes, and even changes in daylight (Torrey et al., 1997).

Other biological environmental risk factors for schizophrenia include certain pregnancy and birth complications and maternal viral infections during pregnancy (Cannon & Keller, 2002), and maternal drug use (Van Os & Marcelis, 1998). The fact that similar risk factors also apply to bipolar disorder and a few other mental disorders supports the idea that schizophrenia may best be conceptualized as being on a continuum with other disorders (especially those on the schizophrenic spectrum) rather than as being an entirely distinct disorder (Jones & Tarrant, 2000; Torrey, 1999; Tsuang et al., 2000).

Genetic Factors Genetic factors clearly play a substantial, though partial, role in the etiology of schizophrenia. However, many questions remain about how genes contribute to the disorder and whether the contribution is unique to schizophrenia or more generally to a range of related disorders (Cannon & Keller, 2006; Citrome & Volavka, 2001; Riley & Kendler, 2004; Siris, 2001). Evidence for the genetic contribution to schizophrenia comes from a combination of familiar research strategies: family studies, twin studies, and adoption studies.

As we have seen in discussing other disorders, the first step in establishing whether a disorder has a genetic basis is to see whether the disorder runs in families. Schizophrenia clearly does run in families. Figure 12.4 shows that when one member of a family has schizophrenia, other family members are far more likely than members of the general population (where the rate is around 1%) to also have the disorder. The closer a person's biological relationship to a schizophrenic family member, the greater the chances the person also has schizophrenia. Thus, a first cousin (known as a third-degree relative) of someone with schizophrenia has a 2% chance of having the disorder; a nephew or niece (second-degree relative) a 4% chance; a sibling (first-degree relative) a 9% chance; and an identi-

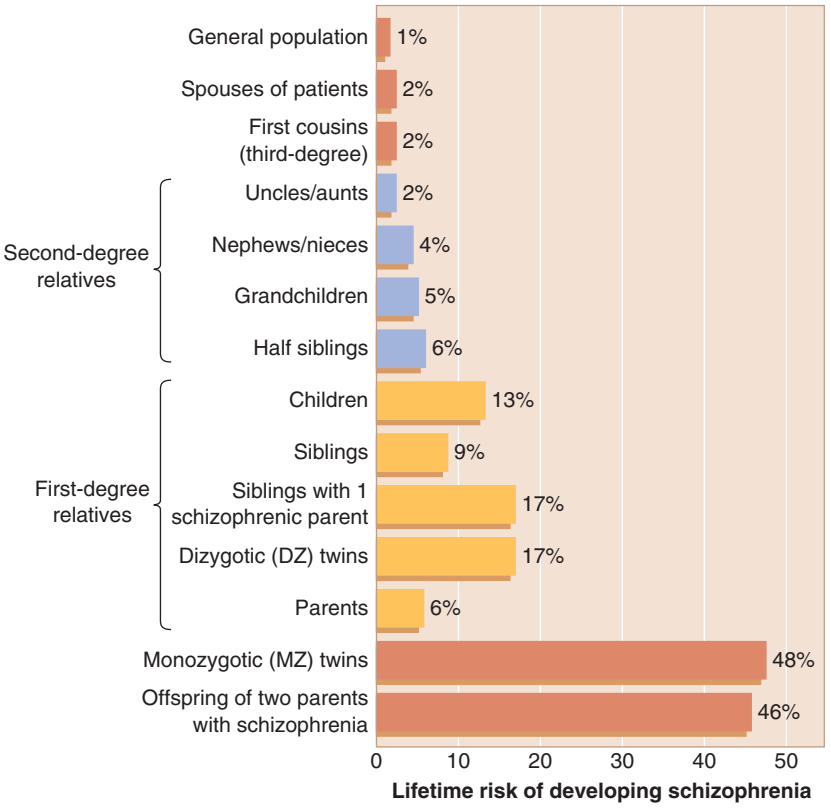


Figure 12.4 Risk for Developing Schizophrenia This graph shows the lifetime risk of developing schizophrenia for various hypothetical relatives of someone with schizophrenia.
Gottesman, 1991, p. 96

cal (monozygotic) twin, the closest possible biological relative, a 48% chance of having schizophrenia. (These findings are according to Gottesman's 1991 summary of European studies between 1920 and 1987. Other studies have shown different concordance rates but with similar overall patterns.) Although such findings may seem to provide convincing evidence of a genetic role in schizophrenia, recall that family studies can only suggest, not prove, a genetic contribution because families share environments as well as genes, and the shared environment could also explain why schizophrenia runs in families. For example, attending certain colleges and universities also strongly runs in families—but no one suspects that this has a genetic basis!

Twin studies are intended to substantially reduce the confounding of genes and environment that limit family studies. Recall that most twin studies are based on the comparison of **concordance rates** (the percentage of cases in which *both* twins have the same disorder) of identical (monozygotic, or MZ) twins with the concordance rates of fraternal (dizygotic, or DZ) twins. If schizophrenia (or any trait) has a genetic contribution, the concordance rates for MZ twins should be significantly higher than those for DZ twins, since the MZ twins are genetic carbon copies derived from the splitting of a single fertilized egg and have 100% genetic similarity, while the DZ twins, originating from two separate fertilized eggs share, like ordinary siblings, 50% of their genes on average (see Figure 12.5). As you can see from Figure 12.4, MZ twins do indeed have substantially higher concordance rates for schizophrenia than DZ twins—by 48% to 17% based on Gottesman's (1991) data.

Concordance rates In a group of twins, the percentage who both have the same disorder.

Twin studies provide powerful evidence for a genetic contribution to schizophrenia, but with two important caveats. First, subtle environmental confounds can affect twin studies, since identical twins are more likely to imitate each other and to be treated similarly than fraternal twins (Lewontin, Rose, & Kamin, 1984). Also, MZ twins sometimes uniquely share another environment—the placenta—which may be implicated in schizophrenia through prenatal illnesses or injuries (Brown et al., 2001; MacDonald et

Figure 12.5 Degrees of Genetic Relatedness The chart illustrates the percentage of genes in common between identical twins, and first-, second-, and third-degree relatives. Research strategies for determining the genetic contribution to various disorders depend upon comparisons among these groups.
Gottesman, 1991, p. 85

Generation	Degrees of relationship: Identical	First	Second	Third
–3				Great-grandparent
–2			Grandparent	Great-uncle
–1		Parent	Uncle	Half uncle
Current	Identical twin	Full sibling Fraternal twin	Half sibling	First cousin
+1		Child	Nephew	Half nephew
+2			Grandchild	Grandnephew
+3				Great-grandchild
Genetic correlation	1.0	0.5	0.25	0.125
Percentage of genes in common with client with schizophrenia	100%	50%	25%	12.5%

al., 2001; Tekell, 2001; Urakubo et al., 2001). Indeed, Davis and Phelps (1995) found that the concordance rate for schizophrenic MZ twins was twice as high when the twins shared the same placenta as opposed to having separate placentas. Second, twin studies clearly indicate that the genetic contribution to schizophrenia is a partial one and that environment plays an equally large role, since if genes were the complete cause of schizophrenia the concordance rate for MZ twins would be 100%, not 48%. Indeed, some of the data from twin studies demonstrate the importance of environmental factors in the etiology of schizophrenia. Note that the concordance rate in Gottesman's samples for regular (nontwin) siblings is 9%, substantially lower than the 17% rate for DZ twins. Genetically speaking, regular siblings and DZ twins are no different; each shares, on average, 50% of their genetic material with their sibling. But DZ twins share more in the way of environment—prenatal and postnatal—since they are conceived, born, and raised together. This environmental similarity, therefore, must be responsible for their higher concordance rates (Joseph, 2002, 2000; MacDonald et al., 2001).

Adoption studies make up the third side of the genetic research triangle; they attempt to further isolate genetic factors from environmental factors. There are two main strategies in adoption studies. One is to find parents with schizophrenia who have given

The Genain quadruplets These famous quadruplets, pictured as young girls and as adults, all developed schizophrenia although their specific symptoms varied.
Monte S. Buchsbaum, M. D., Mt. Sinai School of Medicine, New York, NY

up children for adoption (and therefore have not raised them) and to look at the concordance rates among these biologically but not environmentally related parent-child pairs. The other strategy is to find adoptees who developed schizophrenia and to look at concordance rates with their biological relatives, if they can be located. Clearly, some environmental confounds can remain in these studies, since the postnatal environment is shared with the biological parent(s) up until the adoption, and there could be additional environmental confounds from selective adoption placement with families similar to the biological family and from later contact with the biological family.

With these caveats in mind, we will describe the results of two classic adoption studies. The first, Heston's (1966) study of adoptions from schizophrenic mothers in Oregon, shows that, of 47 adopted children born to mothers with schizophrenia, 5 developed schizophrenia and over half developed other significant types of psychopathology (see Table 12.9). By contrast, of the 50 adoptees from normal mothers, none developed schizophrenia, and less than 20% developed other disorders. Even these compelling results, however, are consistent with a significant environmental role in schizophrenia. For example, recent studies suggest that whether adoptees from schizophrenic mothers develop schizophrenia depends, in part, on the psychological health of their adoptive families (Tienari et al., 1994, 2004; Wahlberg et al., 1997).

Building upon the pioneering work of Seymour Kety and his associates (Kety, 1988) with a Danish sample, Kendler, Gruenberg, and Kinney (1994) examined the concordance rates for schizophrenia among the biological relatives of schizophrenic adoptees. The results showed significant rates of schizophrenia and schizophrenic spectrum disorders among the first- and second-degree biological relatives of schizophrenic adoptees—much higher rates than among control subjects (Gottesman, 1991; Riley & Kendler, 2004). Thus, evidence from all three sides of the genetic research triangle—family, twin, and adoption studies—point to a significant, though partial, role of genetic

TABLE 12.9 Heston's Study of Adopted Children of Schizophrenic Mothers

This table shows that adopted children with birth mothers who suffered from schizophrenia had higher rates of schizophrenia and other disorders, and lower IQs and educational attainment, than adopted children whose birth mothers did not have schizophrenia.

	BIRTH MOTHER WITH SCHIZOPHRENIA	BIRTH MOTHER WITHOUT SCHIZOPHRENIA
Number of adoptees	47	50
Adoptees with:		
Schizophrenia	5	0
Antisocial personality	9	2
Other mental disorders	13	7
Mental retardation	2	0
Adoptees average psychological adjustment rating (100 = best)	65.2	80.1
Adoptees average IQ	94.0	103.7
Adoptees average education (in years)	11.6	13.4

Adapted from Gottesman, 1991, p. 138

factors in the development of schizophrenia and related disorders (Riley & Kendler, 2004). Given this, what genes are involved, and what do they do?

Genetic Linkage Thus far, several different chromosomal regions have been identified in genetic linkage studies as possible sites for schizophrenia susceptibility genes (Lichterman, Karbe, & Maier, 2000; Riley & Kendler, 2004). The fact that different sites have emerged in various studies emphasizes that the exact mechanism for the genetic transmission of schizophrenia remains unknown, but the most recent linkage studies are showing a trend toward more consistent findings (Riley & Kendler, 2004). It is now generally agreed that schizophrenia is genetically complex, and involves a **polygenic** (multiple genes) transmission of a vulnerability to the disorder that depends heavily on environmental triggers for expression (Cannon & Keller, 2006; Lichterman et al., 2000). This view is supported by the cultural differences in the course of schizophrenia; similar patterns of cultural differences are found in other complex, polygenic, environmentally influenced diseases such as diabetes, hypertension, and cancer (Jablensky, 2000). The *polygenic* hypothesis is also consistent with the general *diathesis-stress* model of psychopathology, which holds that most disorders are caused by a combination of a predisposing vulnerability *(diathesis)* and some form of precipitating circumstances *(stress)*.

Polygenic Involving multiple genes.

For example, some researchers hypothesize that as yet unidentified genetic defects affect brain development, growth, and plasticity so as to produce sensitivity to environmental risk factors such as childhood emotional trauma, severe life stress, brain infections, and drug use (Van Os & McGuffin, 2003). This neurologically based vulnerability or sensitivity might take the form of Meehl's *schizotaxia*, or similar traits that only progress to schizophrenia when combined with certain stressful life events (Lichterman et al., 2000; Van Os & Marcelis, 1998).

Finally, schizophrenia researchers have recently become especially interested in the genetic basis of specific, measurable biological traits (or "markers") associated with schizophrenia, such as psychomotor deficits or visual tracking abnormalities. These individual markers, referred to as *endophenotypes* (a *phenotype* is a physical trait of an organism; *endo* means internal), have clearer and simpler genetic causes than the disorder overall. The endophenotype approach essentially allows researchers to break schizophrenia down into genetically relevant component parts or vulnerabilities, a highly promising focus of current research (Cannon & Keller, 2006).

BRIEF SUMMARY

- Information on the biology of schizophrenia has increased dramatically in recent decades. Researchers have discovered brain function, brain structure, neuropsychological, and neurophysiological abnormalities associated with schizophrenia.
- The dopamine hypothesis—that excessive dopamine transmission causes psychosis—was the leading biological explanation of schizophrenic symptoms, at the proximal level, for many years. More recently, it has become clear that schizophrenia has a complex neurodevelopmental basis that includes abnormalities in several neurotransmitter and structural systems.
- At the distal level, several biological theories have been offered to explain the underlying causes of schizophrenia. Genetic evidence suggests that a predisposition to schizophrenia is inherited, but that genetic factors must interact with environmental factors for the disorder to develop. Possible biological environmental factors include viruses, toxins, drug use, and prenatal or postnatal injuries.

Multiple causality

Critical Thinking Question Can you think of other mental or physical disorders that result from an equally complex mix of genetic and environmental causes?

Biological Interventions

The introduction of **antipsychotic medications** during the 1950s created a revolution in the treatment of schizophrenia (Shen, 1999). These drugs, known by their chemical name **phenothiazines** (also referred to as the **major tranquilizers** and the *neuroleptics*), are dopamine *antagonists*, blocking transmission at D2 receptors, and thereby alleviating psychotic symptoms. The phenothiazines created significant improvement in thousands of patients, many of whom had long been relegated to the back wards of overcrowded mental institutions under scandalous conditions (Bane, 1951; Gelman, 1999). Until the 1950s, the main biological treatments for clients with schizophrenia had been electroconvulsive therapy (ECT), insulin-induced coma, and prefrontal lobotomy, which were not particularly effective at best and very harmful at worst (Lokshin, Prolov, & Belmaker,1994; Sakel, 1994). Psychotherapy was helpful in some cases, but most patients were too psychotic to benefit from the "talking cure." Suddenly, with the availability of antipsychotic medications, hospitals could provide treatment rather than merely custodial care.

Antipsychotic medications Medications that reduce psychotic symptoms.

Phenothiazines Chemical name for the first-generation antipsychotic medications.

Major tranquilizers Another name for antipsychotic medications.

Deinstitutionalization The social policy, beginning in the 1960s, of discharging large numbers of hospitalized psychiatric clients into the community.

The public's growing awareness of the deplorable conditions in many psychiatric hospitals increased the call to take advantage of the improvements made possible by the new antipsychotic medications. Individuals with schizophrenia were rapidly discharged from hospitals into community life (Rosenstein, Milazzo-Sayre, & Manderscheid, 1990; Torrey, 2001). The United States government officially endorsed and funded this **deinstitutionalization** movement during the Kennedy administration in the early 1960s (Olshansky, 1980; Robbins et al., 1979). However, the era of hope and enthusiasm created by these medications had all but disappeared by 1980; it had become clear that the antipsychotic medications were not a "magic bullet" after all. A significant number of people with schizophrenia (up to 40%) did not improve on these medications, and those who did saw little improvement in their negative symptoms (such as apathy, social withdrawal, and flat affect). In addition, the phenothiazines commonly caused troubling side effects such as sedation, apathy, constipation, dry mouth, stuttering, menstrual and sexual dysfunctions, blurred vision, and other less obvious physiological changes, including cardiac irregularities and increased photosensitivity (Fayek et al., 2001; Hsiao, 2001; Nayudu & Scheftner, 2000; Pollmaecher et al., 2000). The more serious potential side effects of these medications include *tardive dyskinesia*, a late-developing but sometimes irreversible condition consisting of involuntary movements of the tongue, jaw, trunk, or extremities; *neuroleptic-induced parkinsonian* symptoms; and *neuroleptic malignant syndrome*, a rare but potentially life-threatening condition characterized by extreme muscle rigidity and elevated body temperature (Pollmaecher et al., 2000).

Furthermore, many of the discharged patients deteriorated in community settings, partly because of the lack of adequate social services for them and the loss of the structured environment that the hospitals had provided. It became clear that the antipsychotic medications were only a first step; clients with schizophrenia also needed help with their negative symptoms and greater community support (Meltzer, 1999a). Without these resources, many individuals with schizophrenia quickly relapsed and often became stuck in "revolving door" hospitalizations in which they would be frequently readmitted after being discharged into the community.

In this context, a new class of medications for schizophrenia created a fresh wave of enthusiasm in the late 1980s. A medication called clozapine (marketed as Clozaril) had been shown in Europe during the 1970s, and in trials in the United States during the 1980s, to treat both the positive and negative symptoms of schizophrenia without the side effects of the phenothiazines (Hsiao, 2001). The phenothiazines (the "first-generation" antipsychotics), again, reduced psychotic symptoms primarily by blocking D2 and other dopamine receptors. Clozapine, by contrast, produced much less dopamine blockade and actually

seemed to increase dopamine transmission in the prefrontal cortex, leading to improvements in cognitive deficits and other negative symptoms (Meltzer, 1999b). However, there was one significant downside to this new medication. In a small percentage of patients (1–2%) clozapine caused a potentially fatal side effect known as *agranulocytosis*, a lowering of white blood cell counts (Horacek et al., 2001; Kodesh et al., 2001). As a result, when the Food and Drug Administration approved Clozaril in 1990, it mandated that patients taking the drug had to receive weekly blood tests to screen for agranulocytosis (Honigfield et al., 1996). The combined price for the medication and blood tests reached $9000 per year—a cost that was hardly realistic for most people, let alone individuals debilitated by schizophrenia.

After years of litigation, Clozaril was made available in a more affordable package; fortunately, in the meantime, similar new medications became available as well (Breier, 2001). The effects of these medications, known collectively as the **atypical** or **second-generation antipsychotics** (see Table 12.10), seem to be related to their *antagonistic* targeting of certain serotonin and norepinephrine receptors with a smaller effect on dopamine receptors (Hsiao, 2001; Sadock & Sadock, 2001; Svensson, 2000). For some clients, the effects of the atypical antipsychotics have been nearly miraculous (Keefe, 2001; Meltzer, 1999a). In most cases, however, the major advantage of the atypical antipsychotics has been at best modest improvement in negative symptoms and less severe side effects than the earlier medications. Some critics have argued that the advantages of the atypical antipsychotics over first-generation antipsychotics have been oversold by the pharmaceutical companies that manufacture them (Czekalla, Kollack-Walker, & Beasley, 2001; Keefe, 2001; Torrey, 2001). Research studies now show that most clients on the new medications show more improvement in their positive than in their negative symptoms, just as they did on first-generation drugs, and they remain moderately to severely affected by schizophrenia (Kapur & Remington, 2001; Sadock & Sadock, 2001; Schatzberg & Nemeroff, 2001). In addition, the atypical antipsychotics, though safer in terms of side effects associated with the earlier medications, often cause significant weight gain leading to serious health problems (Lamberti et al., 2006; McEvoy et al., 2005; Remington, 2006).

Atypical or **second-generation antipsychotics** Newer antipsychotic medications that target both positive and negative symptoms of schizophrenia.

Noncompliance with medication remains a serious problem in the treatment of schizophrenia both because of such side effects and because the disorder itself involves major impairments in judgment, insight, and self-care (Kane et al., 2006; Kemp & David, 2001; Yamada et al., 2006; see Table 12.11). Research studies show that up to 50% of clients with schizophrenia are significantly noncompliant with taking medication, resulting in relapses and hospitalizations (Harvard Mental Health Letter, 2007). Injectable medications and outpatient programs that emphasize intensity and continuity of outpatient care (such as ACT—Assertive Community Treatment; see Sociocultural Interventions, below) have been shown to be helpful in increasing compliance (Nasrallah, 2007; Zygmunt et al., 2002)

Currently, the cutting edge in the biological treatment of schizophrenia is the effort to treat, or even prevent, the disorder before it fully develops in high-risk individuals (Hsiao, 2001). The sooner treatment begins after an individual develops schizophrenia, the greater the chance of minimizing long-term positive and negative symptoms. As for prevention, research studies show that treatment with atypical antipsychotics appears to help mildly affected first-degree relatives of clients with schizophrenia, even if the relatives have only minor impairments and no psychosis (Metzer, 1999). These findings gave rise to hope that treatment with these medications during the *prodromal* (developing) phase of schizophrenia could head off full-blown active episodes, reducing considerable suffering and saving on later treatment expenses (Hsiao, 2001). However, treating *developing* schizophrenia also raises a host of complex practical and ethical problems. Identifying people who may be at risk, and treating them with powerful antipsychotic medications in the absence of actual schizophrenia, could expose them to unnecessary side effects and stigmatization

TABLE 12.10 Antipsychotic Drugs: The Pros and Cons

DRUG	ADVANTAGES	SIDE EFFECTS
Conventional (First generation)		
(more than 20 drugs)	• Well known. Proven effective for positive symptoms • Cause less weight gain and diabetes than newer drugs • Some can be injected for gradual absorption with effects lasting up to a month	• Constipation, dry mouth, blurred vision, dizziness • Movement disorders • Rise in prolactin levels • Little effect on negative symptoms
Atypical (Second generation)		
Clozapine (Clozaril), approved 1990	• May be most effective, especially for negative symptoms and cognitive deficiencies • Does not raise prolactin levels • Does not cause movement disorders • May lower the risk of alcohol and drug abuse	• Agranulocytosis[1] (in at least 1% of patients) • Drowsiness, dizziness, drooling • Seizures (in 1%–5% of patients) • Muscle weakness • Weight gain • Diabetes • Rapid withdrawal may lead to psychosis
Risperidone (Risperdal), approved 1993	• Probably outperforms conventional drugs • No seizures or drooling • Movement disorders uncommon	• Dizziness, drowsiness, dry mouth, rapid heartbeat • Some movement disorders at high doses • Weight gain • Diabetes
Olanzapine (Zyprexa), approved 1996	• Probably outperforms conventional antipsychotics • Overall low rate of side effects • Does not raise levels of prolactin • No seizures or drooling • Movement disorders uncommon • Can be injected for gradual absorption with effects lasting up to a month	• Dizziness, drowsiness, dry mouth • Substantial weight gain • Diabetes
Quetiapine (Serouquel), approved 1997	• Similar to risperidone and olanzapine, but little risk of dry mouth or dizziness	• Drowsiness • Substantial weight gain • Diabetes • Occasional movement disorders • See note below[2]
Ziprasidone (Geodon), approved 2001	• No movement disorders • Apparently little weight gain (more data needed) • May be helpful for depression and anxiety	• Headaches, nausea, drowsiness, dizziness, rash • See note below[3]

Notes

[1] Agranulocytosis is a drastic fall in the white blood cell count that creates a risk of fatal infection. White cell count returns to normal in 2–3 weeks when the drug is withdrawn. FDA requires weekly blood tests that considerably raise cost and inconvenience. Clozapine is usually recommended only for patients who have not responded to at least two other antipsychotic drugs.

[2] Cataracts have been reported when quetiapine is given to animals at high doses, and the manufacturer recommends periodic eye examinations. So far no cataracts have developed in human beings.

[3] Ziprasidone can slow electrical conduction through the heart. For most patients, this is not a problem. Heart monitoring by electrocardiogram is recommended for older patients and those with heart disease or a family history of sudden heart attack death.

Adapted from The Harvard Mental Health Letter, *September, 2002*

TABLE 12.11 Rates of Treatment Noncompliance in Schizophrenia

STUDY	SETTING	MEASURE	NONCOMPLIANCE RATE
Forrest et al. (1961)	Inpatient	Urine assay	15%
Irwin et al. (1971)	Open ward	Urine assay	32%
Scottish Schizophrenia Research Group (1987)	Inpatient	Serum assay	46%
Serban & Thomas (1974)	Outpatient	Self-report	42%
Weiden et al. (1991)	Outpatient	Observer and self-report	48% 1st year 70% 2nd year
Carney & Sheffield (1976)	Clinics	Missed injection	40%

Adapted from Kemp & David, 2001, p. 270

(Goode, 1999). Indeed, a recent study concluded that the health risks of preventive treatment with antipsychotic medications may outweigh the benefits (McGlashan et al., 2006).

A similarly complex legal and ethical issue involves the right of psychotic clients to refuse treatment. In most jurisdictions, people cannot be treated involuntarily unless they pose an imminent danger to themselves or others (Dignam, 2000; Griswold, 2000; Heath, 2000). But it is often not possible to accurately assess and predict dangerousness. On August 17, 2000, a man who had begun to hallucinate after he stopped taking his medication for schizophrenia murdered 24-year-old Kevin Heisinger, a social work student, in a bus station bathroom in Kalamazoo, Michigan. Subsequently, legislation was introduced in Michigan to make it easier to compel psychotic clients to take medication. Given that at least 40% of people with schizophrenia are not receiving treatment at any given time and that the risk of violent behavior is greater for untreated clients, this is likely to become a prominent national issue (Torrey, 2001). We discuss related issues at the interface of abnormal psychology and the legal system in more detail in Box 12.5.

BRIEF SUMMARY

- The development in the 1950s of antipsychotic medications, which seemed to operate by reducing dopamine transmission, was a major breakthrough in the treatment of schizophrenia. These drugs provided the first generally effective treatment for schizophrenia and led to the deinstitutionalization movement in which the long-term treatment of schizophrenia shifted from hospitals to community settings.
- By 1980, it was clear that these first-generation antipsychotic medications, though helpful, did little to treat the negative symptoms of schizophrenia, and that most clients needed additional help. Subsequently, atypical, or second-generation, antipsychotics showed initial promise in treating both the positive and negative symptoms of schizophrenia with fewer side effects than their predecessors. However, the atypical antipsychotics have not lived up to expectations, and it is not yet clear how effective these new medications will prove to be over time.
- One current focus in the biological treatment of schizophrenia is on preventing the disorder, through early treatment, among those who may be at high risk.

Critical Thinking Question Which of Peter's symptoms do you think would improve on a first-generation antipsychotic medication, and why?

BOX 12.5 Abnormal Psychology and the Law

PATIENTS' RIGHTS AND THE INSANITY DEFENSE

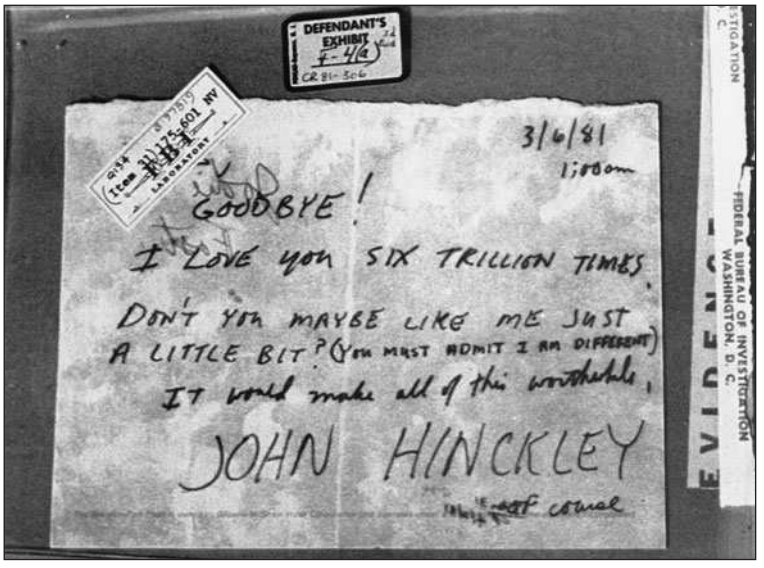
FOCUS ON PSYCHOLOGY IN SOCIETY

The field of abnormal psychology intersects with the legal system in several areas. For example, the civil rights of people with mental illnesses and the confidentiality of mental health treatments have specific legal protection. But society also has a compelling interest in seeing that mentally ill individuals who are at risk for harming themselves or others are not free to do so; this issue is particularly relevant to the most severe disorders, such as schizophrenia. Sometimes individual civil rights are in conflict with the need to protect people from harm, and state and federal courts are continually called upon to balance these competing interests. For example, courts may order a *civil commitment*—forcing an individual to be hospitalized for treatment against his or her will—when they are presented with compelling evidence that the individual poses a significant danger (the exact procedures vary from state to state). Obviously, the government's power to hospitalize people against their will poses risks to civil liberties, and there has been vigorous debate over the proper balance between the protection of individual liberty and the need for society to protect individuals from harm. In recent decades, the balance has tilted increasingly in the direction of emphasizing patients' rights, although in some states the trend has moved in the opposite direction. While specific protections vary by state, many jurisdictions have established patients' rights to receive treatment while hospitalized (not to simply be "warehoused"), to refuse treatments they do not want, to be treated in a humane and minimally restrictive environment, to be paid for work they perform while institutionalized, and to be treated in the community after discharge.

A similar balancing act exists with regard to the confidentiality of mental health treatment records. In 1996, the U.S. Supreme Court affirmed (in *Jaffe v. Redmond*) the principle that the confidentiality of mental health information must be maintained in federal courts on the grounds that confidentiality is essential to psychotherapy and that viable psychotherapy is essential to society. Most states have similar protections, but exceptions are mandated in certain circumstances. For example, in 1976 the California Supreme Court (in *Tarasoff v. Regents of the University of California*) ruled that therapists must break confidentiality and warn potential victims if a client specifically threatens to harm someone. The case involved a man, Prosenjit Poddar, who told his therapist at the University of California that he wanted to hurt his ex-girlfriend, Tatania Tarasoff. The therapist warned the campus police but did not notify Ms. Tarasoff, and she was subsequently murdered by Mr. Poddar. Similarly, many states require that therapists break confidentiality and report to authorities any client disclosures of information indicating that a child or elderly person is being abused.

Courts must also, in a just society, be able to determine whether people accused of crimes might not be (a) responsible for their criminal act or (b) able to assist in their defense in court, due to mental illness. In such cases, a court may institute a *criminal commitment*—commitment to a mental institution until the disorder that led to the criminal acts, or the incompetence to stand trial, has been treated or found to be untreatable. *Mental incompetence* to stand trial is actually a much more common reason for criminal commitment than a verdict of *not guilty by reason of insanity*; only about 1% of all criminal defendants plead not guilty by reason of insanity, and only

(continues)



(Left) ©AP/Wide World Photos (Center) Bettmann/Corbis Images (Right) Ronald Siemoneit/Corbis Sygma/Corbis

John Hinckley, Jr., and the insanity defense Hinkley, shown here in custody, acted on his delusional belief that attempting to assassinate President Reagan would win the love of actress Jodie Foster (right). He was later found not guilty by reason of insanity.

BOX 12.5 (continued)

one-quarter of those are acquitted (Callahan et al., 1991; Melton et al., 1997). Nonetheless, the insanity defense has been quite controversial because it focuses on the question of whether or not individuals should always be held responsible for criminal actions. Over the past 200 years, various courts have established, defined, and redefined the criteria for determining *insanity* (a legal, not a diagnostic, term). The first legal test of insanity was the M'Naghten rule, which states that an individual is not responsible for criminal behavior if he did *not know what he was doing* or was *unable to distinguish right from wrong* at the time of committing the crime. This rule was established by an English court in 1843, which held that Daniel M'Naghten was not criminally responsible for murder (he had killed the Prime Minister Sir Robert Peel's secretary while aiming for Peel, claiming that the voice of God had ordered him to do it). The M'Naghten rule was widely adopted in the United States, but in the late nineteenth century some jurisdictions adopted another standard—the *irresistible impulse test*. By this test, someone who commits a crime in an uncontrollable fit of passion could not be held responsible for the crime. Another test, the *Durham test*, was briefly popular after it was offered in a 1954 U.S. Supreme Court decision *(Durham v. United States)*. The Durham test suggested that a person should not be found guilty if his or her crime was a result of a "mental disease or defect," a more liberal, but also more technical, standard.

Concerns about the limitations of all these tests contributed to the formulation in 1955 of the *American Law Institute (ALI)* test, which combines elements of all the aforementioned tests. The ALI test states that individuals are not responsible for criminal conduct if they have a mental disorder (specifically excluding antisocial personality disorder) that prevents them from understanding right from wrong or from controlling their behavior to comply with the law. The ALI test was widely praised and adopted until John Hinckley, Jr. successfully used the insanity defense in his 1982 trial for shooting President Ronald Reagan, one of his aides, and two police officers. In response to a strong public outcry, the federal government and many states returned to the stricter M'Naghten test. In addition, many jurisdictions shifted the burden of proof of insanity from the prosecution—which previously had to prove that the defendant was sane—to the defense, which now had to prove that the defendant was insane at the time of the crime. Many other states continue to use the ALI standard, while three states—Idaho, Utah, and Montana—do not currently recognize insanity pleas at all.

Cognitive Components

Cognitive theorists have developed several influential ideas about the role of cognitive processes in schizophrenia. Some researchers focus on the role of abnormal *attentional* processes. For example, the positive symptoms of schizophrenia may be related to a problem of *overattention* in which individuals with schizophrenia are unable to screen out irrelevant stimuli (*impaired sensory gating*), possibly because of dopaminergic (dopamine-related) abnormalities (Abi-Dargham, 2004; Swerdlow et al., 1994). This overattention leads to difficulties coping with stress, and possibly further to psychotic symptoms such as delusions when clients attempt to explain their odd subjective experiences to themselves (Blaney, 1999; Schwartz, 1998). One client described his overattention as follows:

> *Everything seems to grip my attention although I am not particularly interested in anything. I am speaking to you just now, but I can hear noises going on next door and in the corridor. I find it difficult to concentrate on what I am saying to you. Often the silliest little things that are going on seem to interest me. That's not even true; they don't interest me, but I find myself attending to them and wasting a lot of time this way.*
>
> *Quoted in Torrey, 2001 (p. 36)*

The negative symptoms of schizophrenia may be related to an equally problematic *underattention* to important stimuli, leading to withdrawal and apathy (Cadenhead & Braff, 1999; Dawson et al., 2000; Moser et al., 2000). For example, studies have shown that individuals with prominent negative symptoms do not have a normal *orienting* response—physical changes associated with sharpened attention—to novel stimuli

(Braunstein-Bercovitz, Dimentman-Ashkenazi, & Lubow, 2001; Lee et al., 2001; Lubow et al., 2000). Interestingly, attentional problems remain present in residual schizophrenia and are found in the nonschizophrenic relatives of individuals with schizophrenia, suggesting that they may reflect an underlying vulnerability to the disorder (Faraone et al., 1999; Kalaycioughy et al., 2000).

Cognitive Inverventions

Cognitive therapists have developed a number of interventions for treating psychosis and schizophrenia in recent years. Despite the cognitive impairments in schizophrenia that might seem to undermine logic-based interventions, cognitive therapists have found that standard cognitive techniques such as *cognitive restructuring* can sometimes be effectively used to challenge and test delusional beliefs (Key et al., 2006; Nelson, 1997). Cognitive theorists emphasize that normal, but exaggerated, cognitive processes and emotional problems can underlie the bizarre symptoms of schizophrenia. For example, cognitive theorists understand persecutory delusions and hallucinations to be exaggerations of expectable reactions to the fear and mistreatment that individuals with schizophrenia often experience in their daily lives (Beck & Rector, 2000). Cognitively oriented interventions have been shown to be effective in both the treatment and prevention of some schizophrenic symptoms (Beck & Rector, 2000; Gottdiener, 2001; Gould et al., 2001; Rector et al., 2001; Spaulding, Johnson, & Coursey, 2001). For example, combined cognitive-behavioral interventions have shown some success in reducing the severity of delusions in a number of research studies (Bustillo et al., 2001, Dickerson, 2000; Torrey, 2001).

Because of the increased awareness of the importance of cognitive deficits in the negative symptoms and functional impairments in schizophrenia, clinicians have also been developing *cognitive rehabilitation* techniques to address problems with attention, focus, and verbal fluency (e.g., Rector et al., 2001). Given that these cognitive deficits are among the symptoms least often helped by medications, such interventions are now seen as an especially important part of the optimal treatment "package" for schizophrenia.

Behavioral Components

Behavioral theorists focus on the importance of *learning* in the development and treatment of schizophrenia. In particular, behaviorists have argued that reinforcement of abnormal responses, such as receiving attention for disorganized speech, can contribute to the abnormal behaviors of schizophrenia through the principles of operant conditioning (Willis & Walker, 1989). For the most part, behaviorists do not argue that schizophrenia is entirely caused by conditioning, and they emphasize the role of biological factors that may predispose someone to learn abnormal responses. For example, biological abnormalities may lead individuals with schizophrenia to respond to atypical, rather than normal, social cues, leading to social difficulties and negative symptoms such as social withdrawal (Lawrie et al., 2001).

Behavioral Interventions

The main focus of behavioral perspectives on schizophrenia has been around treatment interventions rather than explanations of the disorder. For example, reinforcement-based techniques using operant-conditioning principles can be used to increase appropriate behaviors and decrease inappropriate ones in clients with schizophrenia (Black &

Token economy The systematic use of coinlike tokens as rewards in an operant conditioning treatment program.

Milieu treatment An institutional treatment philosophy in which clients take active responsibility for decisions about the management of their environment and their therapies.

Bruce, 1989; Silverstein, Menditto, & Stuve, 2001). The **token economy** is one widely used intervention based on such principles (Foxx, 1998; Silverstein, Hitzel, & Schenkel, 1998). In token economies (which are often used in hospital or other institutional settings), clients who engage in desired behaviors earn coinlike tokens that can be exchanged for privileges such as watching television or having extra snacks. Such systems can effectively promote behavior change in schizophrenia (Foxx, 1998; Silverstein et al., 1998).

Social skills training, another widely used behavioral treatment for clients with schizophrenia, educates clients about appropriate interpersonal behavior (Granholm et al., 2005; Smith, Bellack, & Liberman, 1996). Social skills training has been shown to improve clients' social and interpersonal functioning (Heinssen, Liberman, & Kopelowicz, 2000; Liberman, Eckman, & Marder, 2001; McQuaid et al., 2000), although there is some debate about the extent of these improvements (Bustillo et al., 2001; Granholm et al., 2005).

Sociocultural Components

The sociocultural perspective on the causes of schizophrenia focuses on larger social and institutional forces that may have a role in the development of the disorder. For example, we have already discussed the epidemiological evidence that rates of schizophrenia are higher in lower socioeconomic classes and among those born in urban areas. These data suggest that the stresses associated with urban poverty could be one contributing factor in the onset of schizophrenia.

Another emphasis in sociocultural work on schizophrenia concerns the potentially negative effects of social institutions, such as the medical establishment, on the symptoms and identity of those with severe mental illnesses (Wing & Brown, 1961). You may recall that David Rosenhan's famous "pseudopatient" study (Chapter 1) argued that the dehumanizing conditions of the psychiatric hospitals contributed to the actual patients' symptomatic behaviors (Rosenhan, 1973). Thus, social and institutional forces may play a role in the stabilization and maintenance of schizophrenic behaviors and identity.

A more extreme view associated with both the sociocultural and existential models is represented in the work of the Scottish psychiatrist R. D. Laing (1927–1989). Laing, a founder of the radical *antipsychiatry* movement and a kindred spirit with psychiatry critic Thomas Szasz (Chapter 1), argued that schizophrenia is a healthy, constructive reaction to pathological social and family pressures. As such, he advocated that it should not be "treated," or seen as an illness, but rather allowed to run its course as individuals try to find a solution to their problems (Laing, 1959). Laing's critics, however, have labeled his views irresponsible and insensitive to the suffering of people with the disorder (Torrey, 2001). This issue is discussed more fully in Box 12.1, in which Mark Vonnegut, who suffered from psychotic symptoms, challenges Laing's views.

Sociocultural Interventions

The sociocultural perspective has made important contributions to the treatment of schizophrenia, in terms of both hospital and outpatient care. In inpatient settings, the **milieu treatment** movement developed in response to concerns about the potentially dehumanizing effects of institutional treatment, especially in settings in which clients were "warehoused" rather than treated. In milieu treatment, clients take active responsibility for decisions about the management of their environment and therapy programs (Raesaenen, Nieminen, & Isohanni, 1999; Schermer & Pines, 1999).

On the outpatient side, the failure of the deinstitutionalization movement of the 1960s heightened awareness of the need for better community support and services for clients released from hospitals. The federally supported Community Mental Health

movement began in this context, and it has continued to emphasize the need for outpatient treatment options, including *partial* or *day hospitalization* programs (which clients attend from 9:00 A.M. TO 5:00 P.M. each day) and *halfway houses* (group homes where clients can live and readjust to life in the community), for the seriously mentally ill. However, most experts and advocates for the mentally ill have been extremely disappointed with the quantity and quality of available services, and they cite the high frequency of mental illness among the homeless population as one indicator of the problem. In recent years, as hospital stays have been drastically shortened by economic pressures, the need for quality outpatient services has became especially great. People with schizophrenia are often hospitalized for only a few days, during which they are simply stabilized, medically evaluated, and started or restarted on medication.

The most important factor in effective community care for schizophrenia appears to be the coordination of services. A program called **assertive community treatment (ACT)**, which offers frequent and coordinated contact with clients by a team of professionals, has become a popular and effective model for such care in recent years (Udechuku et al., 2005). In an ACT program, clients develop long-term relationships with an outpatient team (which might typically include a psychiatrist, psychologist, nurse, social worker, job counselor, and aides). A member of the team is available 24 hours a day for emergencies, and during regular hours team members assist clients with everything from personal hygiene to medication compliance, in clients' homes and even on the streets if necessary. In research studies, ACT programs have been shown to decrease relapses, rehospitalizations, police involvement, and the need for emergency medical care (Bustillo et al., 2001; Essock et al., 2006; Gold et al., 2006). Although ACT is expensive, given the number of professionals involved, such programs have also been shown to be cost-effective compared to the alternatives. For example, a recent Australian study showed that an ACT program was able to reduce the number of hopitalizations in the target population by 43%, resulting in savings of almost $14,000 per client per year (Udechuku et al., 2005).

Assertive community treatment (ACT) A treatment program for schizophrenia that offers frequent and coordinated contact with a wide variety of professionals in an effort to decrease relapses and rehospitalizations.

Double-bind communication Contradictory messages such as 'Be independent!' but "Never leave me!" that put the child in a "damned if you do, damned if you don't" position.

Communication deviance Odd or idiosyncratic communications in families.

Expressed emotion (EE) High levels of criticism and overinvolvement in families.

Family Systems Components

Family theorists have long been interested in schizophrenia and have proposed a variety of theories over the years about its causes and treatment. Early family theorists focused on the idea that overly hostile, confusing, or otherwise pathological family environments could contribute to, or even cause, schizophrenia (Gromska et al., 1972; Lidz et al., 1965, 1985; Mirsky & Duncan-Johnson, 1984; Upton & Hoogkamer, 1994). For example, Bateson and colleagues developed an influential early theory that ongoing **double-bind communications** from parents to children—contradictory messages such as "Be independent!" but "Never leave me!" that put the child in a "damned if you do, damned if you don't" position—could lead to the cognitive confusion and emotional paralysis characteristic of schizophrenia (Bateson et al., 1956). However, this theory has been generally viewed as overly reductionistic and has been abandoned by current family theorists.

Contemporary family researchers focus more on specific, measurable variables related to pathological family communication in families with severe mental illnesses like schizophrenia. For example, researchers have explored different aspects of **communication deviance**—odd or idiosyncratic communications—within families (Goldstein, 1998; Hooley & Hiller, 2001). Many studies have also examined how individuals are affected by **expressed emotion (EE)**—high levels of criticism and overinvolvement among family members. Linszen and colleagues (1997) showed that higher levels of EE, which correlate with communication deviance (Miklowitz et al., 1986), are present in the families of individuals with schizophrenia and predict relapse in the affected family members. Furthermore, when EE levels in the family decrease, the functioning

Shine This 1996 movie, which won a best actor Academy award for Geoffrey Rush and was nominated for Best Picture, portrays the life of pianist David Helfgott, who suffers from schizophrenia. The film was somewhat controversial for its implication that Helfgott's schizophrenia was caused by his father's overbearing behavior and by pathological family dynamics.
Photofest

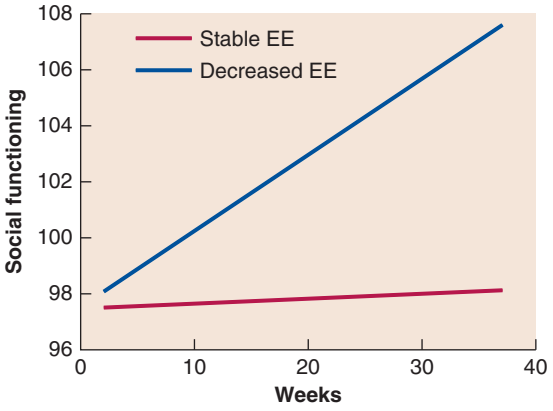


Figure 12.6 Effects of Expressed Emotion (EE) on Schizophrenic Clients' Social Functioning The graph shows that as relatives' expressed emotion (EE) decreased, schizophrenic clients' social functioning improved. When EE was stable, there was no significant improvement in clients' functioning.
Barrowclough & Tarrier, 1998

of the family member with schizophrenia improves (see Figure 12.6). Whether EE is a risk factor for developing schizophrenia, or just for relapsing, continues to be debated. In addition, questions remain as to whether abnormal family communication patterns are indeed *causes* of schizophrenia, or, alternatively, *effects* of having a member of the family with schizophrenia (Goldstein, 1984; Lidz et al., 1985; Mirsky & Duncan-Johnson, 1984; Upton & Hoogkamer, 1994). If family patterns are causal, they must be viewed as partial causes interacting with other biological and psychological components, in keeping with the core concept of ***multiple causality***.

Family Systems Interventions

Regardless of the role of the family in the *etiology* of schizophrenia, there is no doubt that family therapy can be a helpful component of treatment. Family interventions have been shown to reduce communication deviance and expressed emotion, and to lower the risk of relapse of schizophrenic symptoms in previously diagnosed clients (Bustillo et al., 2001). These, in turn, reduce the number of rehospitalizations for clients with schizophrenia.

Psychodynamic Components

Although most of Freud's work was devoted to neurotic rather than psychotic disorders, he was interested in schizophrenia. Freud believed, as do most contemporary experts, that schizophrenia had a substantially biological basis, and he was pessimistic about the value of psychotherapy in treating the disorder (Freud, 1924). Freud's pessimism about treating schizophrenia with psychotherapy was also related to his theory that schizophrenia involved a profound withdrawal of emotional investment in the external world so that individuals with the disorder could not form deep relationships with others, including relationships with psychotherapists (LaPlanche & Pontalis, 1973). He presumed that this withdrawal occurred partly in reaction to emotional traumas very early in life and represented a fixation at an infantile stage (Freud, 1914). Freud suggested that hallucinations and other psychotic symptoms were secondary symptoms of schizophrenia related to the individual's attempt to reconnect with the outside world, an idea that overlaps with some contemporary cognitive and sociocultural theories.

A number of later psychodynamic theorists differed from Freud in their beliefs that schizophrenia could be of entirely psychological origin and effectively treated by psychodynamic psychotherapy. Therapists such as Frieda Fromm-Reichmann (1943, 1948, 1950) and Harry Stack Sullivan (1962) were gifted in understanding clients with schizophrenia and making them feel safe. Fromm-Reichmann's successful therapy with a young woman with schizophrenia has been immortalized in the client's fictionalized,

best-selling memoir, *I Never Promised You a Rose Garden* (Greenberg, 1964), which was later made into a movie. Fromm-Reichmann also became infamous for coining the phrase *schizophrenogenic mother*, or schizophrenia-causing mother. This expressed her belief that schizophrenia could be caused by mothers who were alternately or simultaneously cold, overprotective, and demanding. Fromm-Reichmann's theory predated the contemporary biological discoveries about schizophrenia, and is now considered misguided and obsolete.

Psychodynamic Interventions

Today, most psychodynamic theorists take a balanced approach, believing that biological factors play a central role in the development of schizophrenia but that psychotherapy can be a helpful part of the treatment process. Psychotherapy can be a crucial adjunct to medication since the effects of medication are typically limited in scope, and the combination of the two has been shown to improve personal adjustment, prevent relapse, and increase ongoing treatment compliance (Grady, 1998; Hogarty et al., 1997; Steele, 2001). Individuals with schizophrenia have wishes, fears, hopes, and conflicts that can be helpfully addressed in a caring therapeutic relationship (Davidson, Stayner, & Haglund, 1998; Gottdiener, 2006; Karon, 1992; Robbins, 1993). As one client with schizophrenia put it:

> *My relationship with my therapist . . . was the first real relationship I ever had; that is, the first I felt safe enough to invest myself in. . . . I had drawn so far inside myself and so far away from the world, I had to be shown not only that the world was safe but also that I belonged to it, that I was in fact a person. This grew from years of our working together to develop mutual respect and acceptance and a forum of understanding, in which I believed that he had the capacity to comprehend what I said and that I had the potential to be understood.*
>
> *Anonymous, 1986, "Can We Talk?": The Schizophrenic Patient in Psychotherapy,* American Journal of Psychiatry, *143: 68–70.*

The Multiple Causality of Schizophrenia

Our review of the multiple components that contribute to the understanding of schizophrenia highlights the ***principle of multiple causality.*** For example, while we have learned a great deal about the genetic aspects of schizophrenia, we also know that genetic factors are only partly responsible for the disorder. The possible environmental contributions to schizophrenia include some biological factors, such as viruses, but they also include pathological interpersonal, social, and learning experiences. Most experts agree that the development of schizophrenia typically requires a combination of vulnerabilities and stressors, as described by the *diathesis-stress* model. Accordingly, reductionistic theories of schizophrenia that focus on only a single theoretical approach to the disorder are increasingly being viewed as unhelpful and oversimplified. The state-of-the-art in understanding and treating schizophrenia involves the integration of multiple theoretical components. For example, Hogarty and colleagues (2004, 2002; Hogarty et al., 1997a, 1997b) have developed a psychotherapy for schizophrenia called **personal therapy**, which combines cognitive, behavioral, psychodynamic, and humanistic principles as an adjunct to appropriate pharmacological treatment. Personal therapy, which focuses on helping clients with schizophrenia to solve the practical problems of daily life, has been shown to produce general improvement and to prevent relapses in clients with schizophrenia (Hogarty, 2004, 2002).

Multiple causality

Personal therapy An adjunctive therapy for schizophrenia that combines cognitive, behavioral, psychodynamic, and humanistic principles and helps clients solve the practical problems of daily life.

BRIEF SUMMARY

- Cognitive theorists have focused on the role of attention and reasoning deficits in schizophrenia. Cognitive interventions address these deficits and are increasingly used in the treatment of schizophrenia, often in combined cognitive-behavioral interventions.
- Behavioral theorists focus on the role of operant conditioning, along with other factors, in the development and maintenance of schizophrenic behaviors. Treatments based on behavioral principles, including token economies and social skills training, are widely used as adjunctive treatments for schizophrenia.
- Sociocultural theorists focus on the role of larger social and institutional forces, such as urban poverty and labeling, in contributing to and maintaining schizophrenia. Sociocultural theorists have called attention to the failures of the deinstitutionalization movement, and they have developed milieu therapies and integrated community treatments to deal with sociocultural problems in schizophrenia.
- Family theorists have explored the hypothesis that pathological family environments can contribute to schizophrenia. They focus on the role of pathological communication patterns, such as double-bind communications and expressed emotion, which they address in family therapy.
- Whereas Freud believed that biological factors played an important role in schizophrenia and was pessimistic about the value of psychotherapy, some of his followers developed psychodynamic explanations and treatments for the disorder. Most current psychodynamic theorists emphasize the combination of biological and psychological factors in schizophrenia and see psychotherapy as a helpful adjunctive treatment.
- The ***principle of multiple causality*** is crucial to explanations of schizophrenia. The state-of-the-art in understanding and treating schizophrenia increasingly incorporates multiple theoretical perspectives.

Critical Thinking Question Do you see much overlap among the psychological perspectives on schizophrenia. If so, where?

CASE Vignette

Treatment

Peter • Schizophrenia, Paranoid Type

Peter was admitted to the hospital through the emergency room and placed on a psychiatric unit for observation and treatment. He was immediately given antipsychotic medication in an effort to reduce his psychotic symptoms and agitation. Within two days, Peter was calm and coherent, although he was very subdued and seemed sedated by the medication. Meanwhile, a team consisting of a psychiatrist, psychologist, social worker, nurse, and occupational therapist were working together to arrive at a diagnosis and treatment plan. In talking to Peter's parents, it became clear that he had grown increasingly withdrawn, with occasional oddities of speech and behavior, for well over a year. In addition, his parents revealed that relatives on both sides of the family had experienced psychotic disorders. Since the content of Peter's delusions and hallucinations was paranoid, and his cognition and psychomotor functioning seemed otherwise intact, he was diagnosed with schizophrenia, paranoid subtype.

Peter's parents were devastated by the diagnosis. The team worked with them to provide education about the breakthroughs in biological and psychosocial treatments, and the increased chance for a favorable outcome when premorbid functioning is good, as it had been in Peter's case. Peter was discharged from the hospital after only five days. Peter was fortunate to have responded well to an atypical antipsychotic that reduced both his positive and negative symptoms (although his symptoms were primarily positive) without serious side effects. Peter had to withdraw from school for the semester, but he was able to con-

tinue his music studies while living at home. The hospital staff referred Peter to a local psychiatrist, who monitored his medication and provided weekly psychotherapy. In this respect, Peter was more fortunate than most individuals with schizophrenia because his parents were able to pay for this care. He was also referred to a group for clients newly diagnosed with schizophrenia at a local community mental health center. However, Peter found these meetings uncomfortable and soon stopped going. He was compliant with his medication and therapy, but despite this he started becoming psychotic again when he was about to return to school for the next semester. In his therapy sessions, Peter realized that his fears about leaving home, and the pressures to excel in music, had contributed to his relapse. With support from his therapist and parents, and a temporary increase in his medication dosage, the relapse was short-lived, and Peter was able to return to school. He completed his degree in six years. Peter never completely returned to his premorbid level of functioning, and he had occasional relapses under stress, but six years after his initial episode he was living and working independently and his parents described him as "75% well."

CASE DISCUSSION • Schizophrenia

The onset and symptoms of Peter's schizophrenia were fairly typical of the disorder, but a number of factors contributed to an unusually positive outcome in his case. First, Peter had good premorbid functioning, and his schizophrenia was properly diagnosed and treated relatively early. In addition, Peter's family support and resources allowed him to obtain high-quality, ongoing treatment. Even with these advantages, however, Peter has never fully recovered, and it appears that he will be affected by the disorder for his entire life. Nonetheless, his condition is far better than those of the majority of clients with schizophrenia who have poorer premorbid functioning, fewer resources, and limited access to appropriate treatment.

Chapter Summary

- ***Cultural and historical relativism*** has influenced the classification of disorders involving psychosis (a profound loss of contact with normal reality), resulting in different classification practices in different regions and historical periods. Currently, the term *schizophrenia* is used to describe the most common psychotic syndrome.
- The DSM-IV-TR defines schizophrenia as a constellation of severe cognitive and behavioral symptoms lasting six months or more and causing significant distress.
- Demographic ***context*** variables, including culture, class, age, and gender, affect the epidemiology and course of schizophrenia.
- Experts are unsure whether schizophrenia is a single disorder or a group of related disorders on a schizophrenic spectrum, highlighting the ***advantages and limitations of*** *the DSM-IV-TR* ***diagnosis*** of schizophrenia.
- ***The principle of multiple causality*** is crucial to the explanation and treatment of schizophrenia since the disorder is so complex. Biological, psychological, and sociocultural components interact to cause schizophrenia, and current treatments are also multimodal.

Stephen Wiltshire, *Oxford Circus*.
Courtesy The Stephen Wiltshire Gallery,
www.stephenwiltshire.co.uk

Ian Cook/Time Life Pictures/
Getty Images News and Sport Services

Steven Wiltshire, now in his mid-30s, was diagnosed with autism at the age of three. The British-born son of West Indian parents, Wiltshire did not speak until the age of 5 and continues to live entirely in his own world. Early in his childhood, Wiltshire demonstrated a remarkable ability to draw a wide variety of subjects, but he is most famous for his cityscapes. Wiltshire's preternatural ability to remember and reproduce the visual details of entire cities has earned him the nickname "the human camera." For example, after a 45-minute helicopter tour of Rome, Wiltshire drew an almost perfectly accurate panorama of the entire city—from its major monuments to its winding streets—covering five and a half yards of paper.

To date, Wiltshire has published four books featuring his art, one of which reached the top of London's Sunday Times bestseller list. In June 2006, he received an award from Queen Elizabeth II in recognition of his outstanding artistic contributions to the British Empire. Though some have questioned whether Wiltshire's work qualifies as "art" or merely intricate visual reproduction, his defenders point out that his phenomenal artistic talent should stand on its own, regardless of his disability.

CHAPTER 13

Disorders of Childhood

Mental disorders among children and adolescents often share features with the same disorders when they occur at other times of life; exceptions to this rule are discussed in the Classification in Demographic Context section of relevant chapters. In this chapter, we turn our attention to disorders that occur, or are first diagnosed, almost exclusively during childhood and adolescence.

CASE Vignettes

Molly, age two and a half, has yet to speak. As a baby, she expressed little interest in people. She did not watch her parents but was transfixed by the rhythmic movements of an oscillating fan or by her own rocking motions. Now a toddler, she is preoccupied with the wheels on toy cars and will sit for hours in the living room holding toy cars near her face while spinning their wheels in front of her eyes. Her parents are greatly pained by her seeming disinterest in them (or anyone else) and are very worried about their daughter.

Shane, age 8, is a human tornado. From the moment he wakes in the morning until late at night, he goes at full speed. His mother says that she knew that she was in for trouble while she was pregnant with him: throughout the pregnancy he kicked and moved so much that she was often unable to sleep through the night. When he was 3, his mother went to get him out of bed one morning and found him missing. Panicked, she searched the house for him until a phone call came from a friend who lived two blocks away. The friend had seen Shane playing on her neighbor's lawn and brought him inside. Apparently he had let himself out of his own house early in the morning and decided to explore the neighborhood. Now in the third grade, Shane struggles mightily at school. Though he wants to be "a good boy," he finds it nearly impossible to sit quietly in his seat or to wait his turn in line. His parents have started to receive almost daily calls from the teacher about his behavior: Shane yells out answers without waiting his turn and gets up out of his seat during quiet time. Last week he punched one of his friends during a playground dispute and then called the teacher a "butt head" when she tried to intervene.

DEFINING DISORDERS OF CHILDHOOD

The effort to describe the psychopathologies of childhood has a remarkably short history. Despite the fact that some children have always struggled with emotional problems, the first attempts to systematically describe and classify the distinct disorders of childhood did not occur until the beginning of the twentieth century (Terman, 1916). In part, childhood psychopathology has received less attention than adult psychopathology because "abnormality" in childhood behavior is harder to define than

Miniature adults? Adult definitions of psychopathology, like adult clothes and fashions, don't always suit children very well.

abnormality in adult behavior. Consider some of the common criteria for defining adult psychopathology, as described in Chapter 1:

- Help seeking
- Irrational or dangerous behavior
- Deviant behavior
- Emotional distress
- Significant impairment in functioning

How might these criteria apply to children? The first, *help seeking,* is a poor criterion for psychopathology in adults (as you know, most people who suffer from mental disorders never seek help), and it is even less helpful in children. Children rarely understand the concept of seeking treatment for psychological distress and, by virtue of being children, are far more likely to *act out* their distress than to seek help for it. The second criterion, *irrational or dangerous behavior,* can sometimes be useful in defining and identifying adult psychopathology; if a grown man decides that he will jump from a high building because he believes he can fly, chances are he has fairly significant psychological troubles. But what should we make of a 4-year-old girl who arrives at the breakfast table insisting that she *is* Ariel, the star of the Disney movie *The Little Mermaid?* She may refuse to answer to her given name, responding only to "Ariel" and even insist that she is going to jump in the neighbor's swimming pool. This anecdote (a true one) is amusing, not alarming, and it reminds us that normal children go through periods of blending fantasy and reality, such as when they have imaginary friends. Only later in life is irrational or dangerous behavior seen as a possible sign of psychopathology.

What about the third criterion, the presence of *deviant behavior?* Deviant behavior in adults may be a sign of psychopathology, despite the limitations of this criterion as discussed in Chapter 1. Consider, for example, a grown man who is reluctant to bathe or dress himself even though he is competent to do so, or an adult woman who throws a tantrum at the first sign that she might not get her way. But these kinds of behaviors are expectable, and not necessarily deviant, in children of certain ages. The criterion of "deviant behavior" can sometimes be useful for defining abnormality in children, but it has even more limitations with children than with adults.

Acting out Though some children with emotional disorders experience intense psychological distress, such as the little girl on the right, most children express emotional difficulties through disruptive behavior, such as physical aggression, that upsets the people around them.
(Left) Mary Kate Denny/PhotoEdit
(Right) Michael Newman/PhotoEdit

Does *emotional distress,* our fourth criterion for adult psychopathology, apply to children? Some disorders of childhood, such as separation anxiety disorder, do involve significant distress. However, many childhood disorders seem to cause little, if any, conscious distress for the child. Disorders such as autism, mental retardation, attention deficit/hyperactivity disorder, and conduct disorder are far more upsetting to the adults in the child's environment than to the affected child. Consider, for example, parents who consulted a psychologist because their 5-year-old daughter was not yet toilet trained—a task usually mastered by age 3. The young girl did not appear to be the least bit bothered by the problem and stated simply that she found it a bother to have to stop what she was doing to go to the bathroom. Her parents, on the other hand, were extremely worried that she wouldn't be allowed to begin kindergarten (where diapers are usually forbidden) if she did not start to use the toilet soon. Children do sometimes complain about emotional distress, but they are usually brought to mental health professionals when their behaviors distress the people around them, such as their parents and teachers.

What about the fifth criterion, *significant impairment in functioning?* Again, standards that indicate a possible emotional problem in an adult—such as the inability to care for one's own basic needs or to establish lasting romantic relationships—are problematic when applied to children. Nobody expects young children to care for themselves or to have romantic partners. Yet certain age-appropriate functioning is expected of children, and delays or disruptions in functioning can be indicative of psychopathology. Given the limitations of adult definitions of psychopathology, how do we define childhood psychopathology? To begin, we must consider the core concepts of the ***importance of context*** and the ***continuum between normal and abnormal*** childhood behavior.

In her father's footsteps Anna Freud elaborated on her father's psychoanalytic theories and pioneered techniques for psychodynamic treatment of children. ©Bettmann/Corbis

The Importance of Context in Defining and Understanding Childhood Disorders

The importance of context

Trying to come up with a simple definition of childhood psychopathology is like trying to hit a moving target. Because of normal developmental processes, children are always growing and changing. What is perfectly normal at one age might be a marker of significant trouble at another; we wouldn't think twice about a toddler who sucks her thumb, but we would be concerned about the same "symptom" in a 13-year-old. Arnold Gesell, a developmental psychologist, observed that "If a group of nursery school parents should cast a secret ballot to determine the most exasperating age in the preschool period, it is quite likely that the honors would fall to the two-and-a-half-year-old" (Gesell & Ilg, 1943, p. 177). But he observes that the two-and-a-half-year-old "acts that way because he is built that way" (p. 178). Gesell's research on normal developmental processes highlights the core concept of the ***importance of context*** in defining and understanding abnormality. Childhood behavior must be considered within the context of what is developmentally appropriate for a child of a given age. Bedwetting is normal at age 2 and abnormal at 12; preferring to be with peers instead of parents is normal at age 12 and abnormal at 2.

One of the most useful definitions of childhood psychopathology comes from Anna Freud, the youngest of Sigmund and Martha Freud's six children, who followed in her father's footsteps by elaborating his theories. According to Anna Freud, identifying psychopathology in children "implies asking whether the child under examination has reached developmental levels which are adequate for his age, whether and in what respects he has either gone beyond or remained behind them; whether maturation and development are ongoing processes or to what degree they are affected as a result of the child's disturbance" (Freud, 1965, p. 124). In other words, child psychopathology can be defined as behavior that interferes with normal, progressive development.

Developmental psychopathology A subfield within abnormal psychology that considers abnormal behavior in light of developmental processes.

The effort to define what constitutes psychological normality and abnormality in developing children has given rise to a field within abnormal psychology known as **developmental psychopathology** (Cicchetti & Cohen, 2006), which aims to "understand troublesome behavior in light of the developmental tasks, sequences, and processes that characterize human growth" (Achenbach, 1982, p. 1).

Normal-abnormal continuum

The Continuum Between Normal and Abnormal Childhood Behavior

As implied above, the core concept of the ***continuum between normal and abnormal behavior*** is especially relevant to childhood psychopathology. For example, all children are inattentive, clingy, or aggressive at times. But these behaviors are on the normal side of the normality-abnormality continuum as long as they *do not interfere with progressive development.* A 12-year-old girl who is developing normally may cling to her parents for a few days before leaving for her first sleep-away camp, but a girl of her same age who clings to her parents so much that she consistently refuses to play with agemates is certainly having trouble with social development. Anna Freud also pointed out that each child develops along several different developmental lines simultaneously: from play to work, toward independent body management, toward mature peer relationships, and so on (Freud, 1981). Thus, a 6-year-old boy who refuses to leave his mother may have a serious developmental delay in his social and emotional skills, but have age-appropriate or even advanced intellectual abilities.

Terms such as *delay, age appropriate,* and *advanced* accurately suggest that standards exist for what is considered to be normal social, emotional, cognitive, and physical development in children of different ages. In this context, *deviance* can be a useful criterion for identifying disorders in children, since developmental norms provide a yardstick for measuring deviance against age-appropriate behaviors and expected developmental gains; these norms can help locate childhood behavior on the ***continuum between normal and abnormal behavior***.

BRIEF SUMMARY

- Many of the criteria used to define adult psychopathology are problematic when used to define child psychopathology.
- The core concepts of the ***importance of context*** and the ***continuum between normal and abnormal behavior*** are crucial to defining childhood psychopathology. Definitions of child psychopathology must take into account what behaviors are developmentally appropriate for a child of a given age. Behavior that is normal at one age may be highly abnormal at another, and standards exist that help define "normal" behavior at each age.
- The study of normal and pathological development is sometimes referred to as *developmental psychopathology*.

Critical Thinking Question Can you think of childhood behaviors that are abnormal regardless of age?

CLASSIFYING, EXPLAINING, AND TREATING DISORDERS OF CHILDHOOD

Childhood behavior has always been explained in terms of the dominant *paradigms* for thinking about development. One early and still influential view of the nature of childhood came from the philosopher John Locke (1632–1704), who believed that children's minds were blank slates (or *tabula rasa*) at birth, which were then shaped entirely by

external experiences (Locke, 1950). The philosopher Jean Jacques Rousseau (1712–1788) proposed a somewhat different view: he believed that children were by their very nature good but were often corrupted by harmful environmental influences.

In the first half of the twentieth century, the psychologists G. Stanley Hall and Arnold Gesell proposed a **maturationist** approach in which childhood development was seen as analogous to embryologic growth, with specific developmental and behavioral stages naturally unfolding in a predictable fashion (Gesell, 1940; Hall, 1921). Simultaneously, John Watson's **behaviorism** (see Chapter 2) held that childhood fears, interests, talents, and even personality characteristics could be shaped by early environmental experiences, as is clear in his famous quotation:

> *Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select—doctor, lawyer, artist, merchant-chief, and yes, even beggarman and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors.*
>
> *1925/1970 (p. 82)*

Freudian theories of child development and behavior sit somewhere between Hall and Gesell's focus on internal processes and Watson's focus on external factors. As you know, Freud and his followers maintained that children proceed through a predictable sequence of maturational stages: oral, anal, phallic, latency, and genital. But Freud also believed that environmental factors, such as the relationship with members of one's immediate family, interact with internal processes to shape personality development and, in some situations, to produce mental disorders.

Given that efforts to describe and classify psychopathology in children have lagged behind similar efforts with regard to adults, you may not be surprised to learn that the first edition of the DSM (APA, 1952) contained only two diagnostic categories for childhood disorders: adjustment reaction and childhood schizophrenia (APA, 1952). A third category—behavior disorders of childhood—was added to the DSM-II (APA, 1968), but it was not until the publication of the DSM-III and DSM-IV that the classification of childhood disorders blossomed (APA, 1980, 1987, 1994). The DSM-IV-TR contains 10 general categories of disorders specific to childhood or adolescence, each with several subcategories of its own (see Table 13.1).

Staunch behaviorist John Watson, widely known for his experiments with Little Albert (see Chapter 4), saw no limits to the power of the environment when it came to shaping human behavior.
Hulton Archive/Getty Images

Maturationist A theory of child development in which specific developmental stages are believed to unfold in a natural and predictable fashion.

Behaviorism The theoretical perspective associated with the influence of learning, via classical conditioning, operant conditioning, and modeling, on behavior.

TABLE 13.1 Complete List of DSM-IV-TR Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence

- **Mental retardation:** Mild, moderate, severe, or profound
- **Learning disorders:** Reading disorder; mathematics disorder; disorder of written expression
- **Motor skills disorders:** Developmental coordination disorder
- **Communication disorders:** Expressive language disorder; mixed receptive-expressive language disorder; phonological disorder; stuttering
- **Pervasive developmental disorders:** Autistic disorder; Rett's disorder; childhood disintegrative disorder; Asperger's disorder
- **Attention deficit and disruptive behavior disorders:** Attention deficit/hyperactivity disorder; conduct disorder; oppositional defiant disorder
- **Feeding and eating disorders of infancy or early childhood:** Pica (eating nonfood substances); rumination disorder (regurgitation and rechewing of food)

(continues)

Watch and learn Children are, indeed, highly responsive to their environments. Their behavior can reflect both the best and the worst of what they see in the adults who surround them.
Elizabeth Crews/The Image Works

- **Tic disorders:** Tourette's disorder; chronic motor or vocal tic disorder; transient tic disorder
- **Elimination disorders:** Encopresis (defecating in inappropriate places); enuresis (urinating in inappropriate places)
- **Other disorders of infancy, childhood, or adolescence:** Separation anxiety disorder; selective mutism; reactive attachment disorder of infancy or early childhood; stereotypic movement disorder

Adapted from the DSM-IV-TR (APA, 2000)

In this chapter, we will focus on five of the most prominent DSM-IV-TR childhood disorders: *mental retardation, learning disorders, pervasive developmental disorders, attention deficit and disruptive behavior disorders,* and *separation anxiety disorder* (see Table 13.2).

TABLE 13.2 Five Prominent DSM-IV-TR Childhood Disorders

- **Mental retardation:** Significantly impaired intellectual functioning and adaptive behavior (lifetime prevalence estimate: 1% of the population).
- **Learning disorders:** Deficits in specific academic skills (lifetime prevalence estimate: 2–10%).
- **Pervasive developmental disorders:** Severe impairment in several areas of development (lifetime prevalence estimate: approximately 5 cases per 10,000 individuals).
- **Attention deficit and disruptive behavior disorders:** Inattentive, hyperactive, impulsive, dangerous, and/or disobedient behaviors (prevalence estimates: attention deficit/hyperactivity disorder: 3–7% of school-age children; conduct disorder: 1–10% of school-age population; oppositional defiant disorder: 2–16% of school-age population).
- **Separation anxiety disorder:** Excessive anxiety concerning separation from home or attachment figures, usually parents (prevalence estimate: 4% of children and young adolescents).

Adapted from the DSM-IV-TR (APA, 2000)

Mental Retardation

Mental retardation Severely impaired intellectual functioning and adaptive behavior.

Mental retardation is one of the few mental disorders that is usually present at birth and persists throughout life. Due to its chronicity, mental retardation is the only disorder besides the personality disorders to be listed on Axis II of the DSM-IV-TR. In order to be diagnosed as mentally retarded, an individual must have an IQ score below 70 and also have significant trouble functioning independently (see Table 13.3).

TABLE 13.3 Diagnostic Criteria for Mental Retardation

- Significantly subaverage general intellectual functioning (IQ below 70).
- Significant limitations in at least two of the following areas of adaptive functioning: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health, and safety.
- Onset before age 18.

Adapted from the DSM-IV-TR (APA, 2000)

CASE ILLUSTRATION

Howard was a happy and responsive infant, though by the time he was 6 months old, his parents noticed that he was not as responsive and engaged as the other babies in his play group. They became concerned when he failed to reach several developmental milestones within normal ranges—he sat, stood, and walked much later than his peers or siblings did. As a toddler he seemed to be "slow" but he was also friendly and affectionate with his parents and with other children. When Howard was 5 years old he scored a 55 on an IQ test, indicating that he was mildly mentally retarded. He was placed in special education classes at school. As a teenager, Howard was able to work as a stock boy at a convenience store near his home. Though Howard could dress and feed himself, he was unable to take the bus to work or to figure out the proper amounts of money when shopping.

The DSM-IV-TR distinguishes among four different levels of severity of mental retardation: mild, moderate, severe, and profound. The distinction is made largely on the basis of IQ score, which is strongly correlated with social competence and adaptive behavior (Reynolds, 1981). The following descriptions are adapted from the DSM-IV-TR (APA, 2000).

Mild mental retardation: IQ = 50–70 Approximately 85% of people who are mentally retarded are classified in the mild range. Historically referred to as "educable" retardation, this category includes individuals who typically have adequate social and communication skills and who may acquire school skills as high as the sixth-grade level. As adults, the mildly mentally retarded are often able to work in simple jobs and to live independently or with intermittent support and supervision from others.

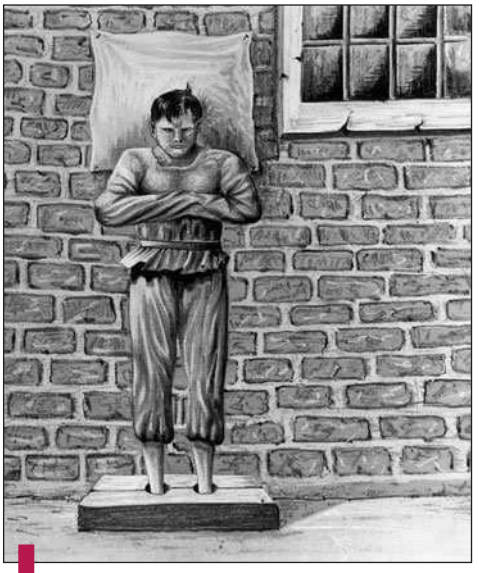
Moderate mental retardation: IQ = 35–50 The classification of moderate mental retardation is appropriate for about 10% of all mentally retarded individuals. As teenagers, moderately retarded individuals may have significant difficulty with even simple social interactions and need extra help in attending to their own personal care. In adulthood, they often live in supervised settings and are able to engage in simple vocational tasks, though they rarely achieve academic skills above the second-grade level.

Severe mental retardation: IQ = 20–35 Comprising approximately 3% of all mentally retarded individuals, those with severe retardation usually cannot read or use complex sentences in speech. Although they may be able to learn some simple tasks and basic self-care skills, they rarely learn more than the most elementary of school skills. As adults, the severely mentally retarded cannot care for themselves or travel alone but may be able to partially support themselves in jobs that require unskilled labor.

Profound mental retardation: IQ = <20 Individuals suffering from profound mental retardation make up roughly 2% of the mentally retarded population and usually require full-time custodial care throughout their lifetimes. Under optimal conditions, the profoundly retarded may develop some communication and self-care skills. In most cases, individuals with severe mental retardation have an identifiable neurological disorder that causes their mental retardation and is also often responsible for significantly shortened life expectancies.

Explaining and Treating Mental Retardation

Mental retardation is one of the best understood childhood psychopathologies. It is a clearly defined and identifiable syndrome that usually results from one of two causes: biological abnormalities or sociocultural and family systems factors.



Treating the "feeble minded" Depiction of nineteenth-century conditions for "feeble minded" children.

Archives Charmet/The Bridgeman Art Library International

Physical features of Down syndrome This boy displays the physical abnormalities typically associated with Down syndrome: almond-shaped eyes, flat face, small mouth, and broad hands.

Laura Dwight/Laura Dwight Photography

Down syndrome A form of mental retardation caused by having three twenty-first chromosomes; characterized by mild mental retardation and distinctive physical features.

Trisomy 21 The phenomenon of having three, not two, twenty-first chromosomes, causing Down syndrome.

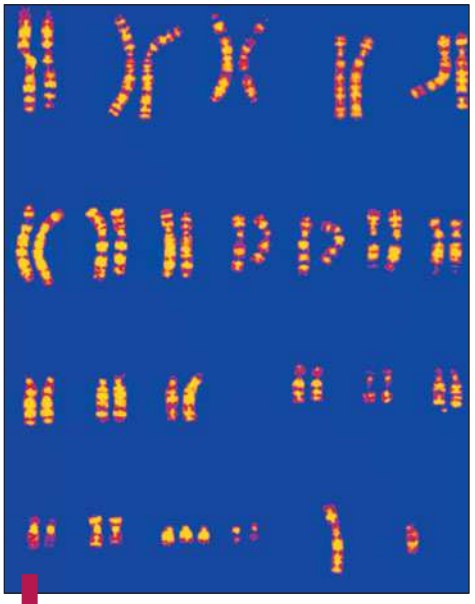
Fragile X syndrome A chromosomal disorder resulting in learning disabilities or mental retardation, distinctive physical features such as long faces and large ears, and behavioral difficulties.

Phenylketonuria A genetic disorder in which the liver fails to produce an enzyme that metabolizes phenylalanine; it can cause retardation, hyperactivity, and seizures in humans.

Tay-Sachs disease A genetic disorder that leads to the progressive deterioration of the nervous system and usually results in childhood death.

Fetal alcohol syndrome Mental retardation and a variety of physical abnormalities that result from prenatal exposure to alcohol.

Shaken baby syndrome Severe bruising of the brain and heavy bleeding within the skull that can result when an infant is shaken violently.



Down syndrome karyotype In karyotyping, chromosomes are arranged in pairs. As you can see in this karyotype of a boy with Down syndrome, there are three, not two, chromosomes in the twenty-first set.

L. Willatt/East Anglian Regional Genetics Service/ Photo Researchers, Inc.

Biological Components

Moderate, severe, and profound mental retardation usually have a biological basis (Hodapp & Dykens, 2003). While several hundred organic causes of mental retardation have been identified, the major biological factors associated with mental retardation are genetic abnormalities, metabolic deficiencies, and prenatal and postnatal complications.

Genetic Abnormalities

Most cases of mental retardation result from genetic abnormalities. **Down syndrome**, which occurs in 1 out of every 1000 births, is the leading cause of mental retardation (Mao et al., 2003). Individuals with Down syndrome have what is known as **trisomy 21**; they have three, not two, twenty-first chromosomes. Trisomy 21 results when chromosomes fail to divide properly during cell division (meiosis)—an anomaly that is more likely to occur in the pregnancies of older women. John Langdon Down, a physician, originally described the physical abnormalities associated with the syndrome in 1866: almond-shaped and upwardly slanting eyes (resulting in the now outdated term "mongolism"), flat face, large tongue and small mouth, broad hands, and shortened life expectancy.

The second most common genetic cause of mental retardation is known as the **Fragile X syndrome** because it involves any one of a number of genetic abnormalities of the X chromosome. Males with Fragile X syndrome are almost always mentally retarded, have long faces and large ears, and often are hyperactive (Cornish et al., 2004). Girls with Fragile X syndrome are less likely to display mental retardation than boys, but do have high levels of learning disabilities and behavior problems.

Metabolic Deficiencies

Metabolic disorders that affect intelligence usually result when both parents contribute a pathogenic recessive gene to a child's genetic material. The most common metabolic disorder associated with mental retardation, known as **phenylketonuria** (PKU), results when the liver fails to produce an enzyme that breaks down a common amino acid called phenylalanine. Unmetabolized phenylalanine is toxic to humans and causes retardation, hyperactivity, and seizures. When detected before 3 months of age, PKU can be effectively treated (and mental retardation can be avoided) by restricting the intake of phenylalanine. (You may have seen the warning found on diet cans of soda—Phenylketonuriacs: Contains phenylalanine.) Similar to PKU, **Tay-Sachs disease** occurs when a child receives a recessive gene from both parents. Tay-Sachs causes the progressive deterioration of the nervous system and usually results in childhood death. The gene for Tay-Sachs is particularly prominent among Jewish populations, and presently, the disease is untreatable.

Prenatal and Postnatal Complications

Mental retardation can result when fetuses or children are exposed to poisons, diseases, or physical traumas that damage the brain. Cocaine, marijuana, and nicotine are among the many drugs known to cause fetal brain damage when used by pregnant women. Women who drink alcohol during pregnancy may cause **fetal alcohol syndrome** in which babies are born with mental retardation and a host of physical abnormalities (see Chapter 9). Maternal rubella, herpes, or syphilis infections during pregnancy can also cause prenatal brain damage. Premature birth and postnatal exposure to toxins such as lead or mercury are another known cause of mental retardation. **Shaken baby syndrome** is the most common childhood physical trauma associated with permanent brain damage. It results when a caretaker who is angered and overwhelmed by the demands of caring for an infant violently shakes a baby back and forth. Given that babies lack the strength to control the movement of their heads, such shaking can result in severe bruising of the brain and heavy bleeding within the skull, leading to cognitive impairments.

Sociocultural and Family Systems Components Some mentally retarded children have what is known as *cultural-familial retardation.* On the sociocultural side, retardation may be related to extreme poverty and its attendant difficulties: inadequate prenatal care, meager nutrition, substandard schools, and overwhelmed families. While it is impossible to completely untangle biological and sociocultural causes of mental retardation because poverty inevitably affects overall health, poverty can undoubtedly contribute to intellectual impairment (Farah et al., 2006). On the familial side, retardation can result from extreme sensory and social deprivation. A physically healthy child may fail to develop intellectually if his or her parents do not provide an adequately stimulating home environment (Gottlieb & Blair, 2004).

Intervention programs designed to address the effects of chronic poverty and/or sensory deprivation have been found to prevent or remediate the effects of cultural-familial retardation. Head Start, a long-standing national early intervention program, has successfully promoted the intellectual development of poor children who otherwise may lag behind their middle-class peers even by the time they start kindergarten (Love, Chazan-Cohen, & Raikes, 2007). Educational interventions directed at the preschoolers of impoverished mothers with low IQs have been found to raise scores on intellectual and academic measures, reduce rates of teenage pregnancy, and increase the likelihood that the child will attend a four-year college (Campbell et al., 2002). Programs that work directly with families have also been found to foster intellectual growth in children. One study of low-birthweight premature infants investigated the effects of three kinds of familial intervention: home visits to provide support and information, drop-in child care centers, and meetings for parents. The researchers found that involvement in any one of the available interventions was associated with increases in the children's IQs (Blair, Ramey, & Hardin, 1995).

Most of the available interventions for children and adults with mental retardation focus on providing appropriate educational and personal support for the mentally impaired. Educational interventions have been the predominant form of treatment for the mentally impaired, but the nature of educational interventions has changed radically over the last several decades. The "warehousing" of retarded individuals in state institutions prior to the 1960s gave way to the current focus on **normalization**, which aims to promote the most normal functioning possible (Handen & Gilchrist, 2006). To this end, mentally retarded children are taught academic skills as well as language, social, and daily living skills. Behavioral modification techniques based on operant-conditioning principles are central to *normalization* (Handen & Gilchrist, 2006). Tasks are broken down into discrete components and rewards are provided for the competent execution of each component, and ultimately of the entire task. A major controversy in the education of the mentally retarded has centered on whether they should be taught in **special education** classes with other mentally retarded individuals, or placed in **inclusion classrooms** with children of normal intelligence. Despite years of controversy, neither special education nor full inclusion has been shown to be clearly superior for all mentally retarded individuals.

Most mentally retarded individuals live in group homes, supervised apartments, or their own family home (Lakin et al., 2004). The residential placement of each mentally retarded person must take into account the availability of family support and the degree of intervention and supervision required. Individuals living in group homes share a communal living arrangement that is supervised by a full-time staff of paraprofessionals. Mildly mentally retarded adults are often able to live independently in supervised apartments and to work in **sheltered workshops** that provide work appropriate to each individual's skills.

The "mainstreaming" debate

Proponents of the inclusion approach argue that mentally retarded individuals benefit most when integrated into academic and social settings with normally developing age-mates, like the young people shown here. To date, research studies indicate that mainstreaming suits some mentally retarded individuals well, while others benefit from special education settings.

Richard Hutchings/PhotoEdit

Normalization An intervention approach for people suffering from mental retardation that aims to promote the most normal functioning possible by teaching academic, language, social, and daily living skills.

Special education Classes tailored to people with learning impairments or mental retardation.

Inclusion classrooms Classrooms where children with special academic needs (learning impairments, mental retardation) are taught alongside normally functioning children rather than in special education settings.

Sheltered workshops Supervised work settings for people suffering from mental retardation or other impairments.

BRIEF SUMMARY

- Mental retardation is characterized by intellectual functioning and adaptive behavior that are significantly impaired.
- Mental retardation results primarily from genetic abnormalities such as Down syndrome, metabolic deficiencies such as phenylketonuria (PKU), and prenatal and postnatal complications such as maternal rubella during pregnancy or shaken baby syndrome after birth.
- Mental retardation can also be caused by sociocultural and familial factors such as inadequate nutrition or lack of environmental stimulation.
- Mentally retarded children are usually schooled in special education classes and live either with their families or in group-home settings as adults.

Critical Thinking Question Do you think that low IQ related to poverty (cultural-familial retardation) should be considered a "mental disorder"?

Learning Disorders

Learning disorders Deficits in specific academic skills compared to what would be expected given a child's age, schooling, and intelligence.

While the intellectual deficits associated with mental retardation tend to impair all areas of cognitive functioning, individuals suffering from **learning disorders** usually have trouble with a specific kind of academic skill (Table 13.4). For example, some children do well in math and music classes but have extreme difficulty learning to read. In contrast, other children read and write fluently, but are unable to master even the most basic mathematical concepts. Many people assume that individuals with learning disorders are not intelligent. On the contrary, learning disorders are usually identified by a notable lack of achievement in one area in the context of average or superior ability in other academic domains (APA, 2000).

TABLE 13.4 Diagnostic Criteria for Learning Disorders

- Academic achievement in reading, mathematics, or written expression is substantially below what would be expected given the child's age, overall intelligence, or general education.
- The disturbance significantly interferes with academic achievement or activities of daily living.

Adapted from the DSM-IV-TR (APA, 2000)

CASE ILLUSTRATION When Jessica, who is in the third grade, failed the first two math tests of the school year, her teacher contacted her parents. Though Jessica struggled with mathematical concepts in first and second grade, her parents and teachers assumed that she was simply making the adjustment to elementary school and that her math abilities would improve gradually over the course of the next school year. On the school's recommendation, Jessica was tested for a learning disorder. She received a full-scale IQ score of 112, which included a verbal IQ of 118 (a measure of language-related skills) and performance IQ of 105 (a measure of nonverbal skills such as working with puzzles and symbols). All of Jessica's IQ scores fell in the average to high-average range. However, Jessica's scores on the achievement tests (which measure grade and percentile equivalents for a variety of school skills) placed her in the fifth percentile for math achievement, though she performed close to grade level in nearly