

THEORIES OF DRUG USE

In this chapter, we discuss several theoretical explanations for drug use and abuse in society, with particular emphasis on sociological explanations. A theory is simply an explanation for some phenomenon that has the flexibility to be applied across a variety of circumstances and conditions. Accordingly, the theories discussed in this chapter provide explanations for why people use and abuse drugs across a variety of different conditions and circumstances.

There are several dozen theories of substance use and abuse. Some theories are applicable to all forms of drugs and patterns of use, while others are extremely focused, addressing only a particular drug or a particular pattern of use. A very broad theory of substance use is able to provide an explanation for the experimental, occasional, and heavy use of a number of different drugs, both legal and illegal. In this chapter, we focus on a number of relatively broad theories, and we assess the accuracy of these theories by considering the empirical support (research findings) for them. Research provides the evidence that tells us whether the explanations offered by these theories are correct—but what is typically found is that a particular theory may be empirically valid (“right”) under some circumstances and not under others. For example, one theory may be good at explaining the use of marijuana by adolescents, but a different theory may be better at explaining why middle-aged adults abuse prescription drugs. Thus, these theories should not necessarily be viewed as if they are in competition with one another, but rather as complementary explanations for substance use that often overlap.

The first of the theories reviewed in this chapter is commonly called the “nature perspective,” and proponents of this approach assert that substance use is one way that people express a universal and innate drive to alter their consciousness. This drive to alter one’s consciousness is argued to be present at birth and is expressed in a variety of nondrug ways. Drug use is a very common way for the drive to be expressed because drugs are among the most convenient and widely available means to alter consciousness.

Genetic/biological explanations are another category of theories that is discussed in this chapter. With their focus on heredity, these perspectives may seem, on their face, to be similar to nature explanations. However, genetic explanations are actually quite distinct from the nature model because they contend that genetic *differences* in people account for different substance use and abuse patterns. In contrast, nature theories argue that the tendency to use and abuse substances is *universal*, although different people manifest this tendency in different ways.

We also examine the disease model of substance use. Versions of the disease model differ in terms of what they contend causes substance dependency, but these perspectives all tend to phrase their discussion of drug use in medical terms and to view alcoholics and addicts as suffering from an illness that is largely beyond their control.

Psychological perspectives of drug use are also addressed in this chapter. These include the self-derogation model, which views substance use as pathological and the result of a lack of self-esteem, and the “problem behavior”

perspective, which regards substance use as symptomatic of an underlying problem behavior condition characterized by risk-taking and unconventionality. Several other psychological explanations for substance use exist as well, and most notable are those that focus on behaviorism and the role that reinforcement and punishment play in substance use and abuse. However, we examine these perspectives in the context of social learning theory, a sociological perspective that incorporates the principles of operant conditioning (positive/negative reinforcement and punishment; Skinner, 1953) as well as imitation (Bandura, 1973, 1977), but that also acknowledges the role of social variables in substance use and abuse.

Sociological theories of substance use and abuse are then examined with a particular focus on learning and subcultural learning theories, social bonding theory, interactional theory, age-graded theory, and perspectives addressing the importance of economic and emotional strain and social conflict perspectives. This chapter places particular emphasis on sociological explanations of substance use because, as compared to psychological and especially genetic theories of substance use, sociological theories acknowledge the importance of environmental factors for an understanding of substance use, abuse, and problems.

NATURE THEORIES

Nature theories contend that the desire to use psychoactive substances is an innate and universal drive in human beings analogous to the hunger or sex drive (Weil, 1986; Weil & Rosen, 1998). The foremost proponent of the contemporary nature perspective of substance use is Andrew Weil, a medical doctor and well-known expert on alternative medicine. Regarding the innate human drive toward consciousness alteration, this perspective recognizes that, from infancy, humans engage in behaviors that produce alterations in their consciousness. Weil claims that early in life, this desire for consciousness alteration is manifested in behaviors such as infants rocking themselves into calm, blissful states and children “spinning”

themselves or purposefully hyperventilating to produce dizzying mental states. However, as people grow older, “they find that certain available substances put them in similar states” (Weil & Rosen, 1998, p. 15). Drugs become a commonly used mechanism for achieving the goal of consciousness alteration not because they are distinct in their capacity to alter consciousness, but because they offer a quick and convenient means to achieve this goal (Weil & Rosen, 1998).

Supporting Weil’s position is the ubiquity of psychoactive substance use in human societies (discussed in Chapter 1) and the fact that drugs have been used to alter consciousness for thousands of years despite their potential harms. Supporters also point to the fact that altered consciousness is pursued by people in many nondrug ways, including the behavior of children discussed above; meditation; intense physical activity (e.g., runners report being “addicted” to the high associated

Self-inflicted pain is one method by which people alter consciousness. One example is the traditional American Indian Sun Dance ceremony, historically practiced by a number of tribes. The Sun Dance ceremony involved a process in which warriors would skewer their chests with bone or wood, attach the skewers to a pole, and dance until the skewers pulled free. This process of self-torture often lasted many days and the pain and sacrifice of the flesh was deeply spiritual, prompting visions and signifying rebirth and a desire to return something of themselves to nature (Atwood-Lawrence, 2004).

with exercise); risk-taking behaviors such as skydiving or dangerous driving; fasting from food or water; and even through self-inflicted pain (see box on p. 52). Research on the theory is limited as it is not amenable to conventional empirical testing.

Because the drive to alter consciousness is argued to be present in all humans, this perspective contends that drug use should not necessarily be viewed as bad or pathological. However, it also recognizes that drug use has the potential to be manifested in ways that are harmful to users or those around them. Weil thus emphasizes the importance of nonbiased drug education to inform people of the dangers associated with drugs should they choose to use them (Weil & Rosen, 1998).

GENETIC/BIOLOGICAL THEORIES

Genetic or biological theories of substance use suggest that the individuals who are most likely to use and (especially) to become addicted to drugs are characterized by genetically inherited predispositions to these problems. Although some genetic theories focus almost entirely on the role of heredity for explanations of substance use and abuse, most argue, more reasonably, that genetics is one of many factors that may predispose individuals to use substances and to abuse them once they have used.

Genetic theories of substance abuse and addiction typically propose that inherited characteristics affect how people metabolize substances and/or experience the effects of a substance. Via genetics, an individual's biological makeup is proposed to affect "the experience of substance use" in a variety of ways, including whether an individual feels unpleasant rather than good upon ingesting a particular drug, whether the consumption of a drug causes illness at low rather than high doses, and whether the consumption of a drug increases as opposed to reduces feelings of anxiety. As an example, research has documented the "flushing response" that some people experience as a result of alcohol consumption (see also Chapter 6). The flushing response is thought to be primarily genetic in origin and is more likely among certain racial/ethnic groups than others, particularly people of Asian ancestry (Chan, 2018). The flushing response is thought to affect more than one-third of all persons of East Asian descent and more than 540 million people globally with symptoms including facial flushing, sweating, nausea, and sometimes tachycardia (Chan, 2018). This unpleasant reaction to alcohol is predominantly due to an inherited deficiency in the enzyme aldehyde dehydrogenase (Eng, Luczak, & Wall, 2007). This represents a biological explanation for substance use because, due to an inherited condition, afflicted individuals will respond to alcohol consumption by feeling anxious and nauseous as opposed to relaxed and will therefore be less likely to drink, all other things being equal.

Research into the genetic causes and correlates of drug use is important for a complete understanding of drug use and drug dependence, but it is important to recognize that genetics play a relatively limited role in explaining human behavior. The causes of drug use and dependence are complex, yet it is all too common for people to ignore this and place a great deal of faith in genetic explanations because the concise and unequivocal nature of these explanations is so appealing. This is highlighted by a cartoon published in *The New Yorker* magazine "in which a genetic scientist, replete with lab coat, clipboard, and genome chart, rushes into the lab and announces to his colleagues 'I've found it! I've found the gene that makes us think everything is determined by a gene!' " (Reinarman, 2004, p. 32).

Sensitization Theory

Recent work in the area of biology and addiction suggests that people may also develop biological predispositions to substance abuse and addiction as a neurological consequence of their previous drug use (Berridge & Robinson, 2016; Volkow, Koob, & McClellan, 2016). Referred to as sensitization theory (or incentive-sensitization theory), this perspective suggests that the chronic administration of certain psychoactive drugs generates alterations in the brain that increase vulnerability to continued drug use, relapse, and craving (concepts discussed in Chapter 3). Sensitization theory is a unique type of neurobiological theory of addiction, as it is distinct in the sense that *a behavioral pattern*, chronic substance use, places the individual at elevated risk for drug use, relapse, and craving *via a biological process*.

Sensitization theory can be summarized with the following principles (technical jargon is minimized as much as is possible): (1) Drugs that have the potential to be addictive have the ability to alter brain organization via an adaptive process; (2) the brain systems that are altered include those involved in incentive, motivation, and reward; (3) the neurological changes pertaining to addiction render these brain systems hypersensitive or “sensitized” to drugs and drug-associated stimuli; and (4) the brain systems that are sensitized do not affect how the individual perceives the pleasurable or euphoric effects of drugs (called drug “liking”) but instead affect the “incentive value” of the drug, or how much the individual wants the drug (called drug “wanting”; Berridge & Robinson, 2016; Robinson & Berridge, 2001, p. 103).

Put more simply, the theory suggests that chronic drug use causes long-lasting changes in dopamine-related motivation systems of susceptible individuals, called neural sensitization (Berridge & Robinson, 2016). The brain circuitry that mediates incentive salience, or “wanting,” a form of motivation, is tied to neural systems that include dopamine, and all known addictive drugs activate reward centers in the brain via sharp releases of dopamine (Wise, 2008). By comparison, “liking,” or the actual pleasurable impact of reward consumption, is mediated by smaller and fragile neural systems, and is not dependent on dopamine (Berridge & Robinson, 2016). Hypersensitization affects levels of drug wanting, and when wanting reaches a pathological level, it is considered drug “craving,” which is an intense desire to reexperience the effects of a drug independent of any physical withdrawal symptoms (Cami & Farre, 2003; Robinson & Berridge, 1993). According to incentive-sensitization theory, drug addiction is most centrally attributed to an excessive amplification of psychological “wanting” (tied to dopamine), especially triggered by cues (e.g., stress, settings where drugs are often used), without necessarily an amplification of “liking,” which again refers to the pleasurable effects of being high (Berridge & Robinson, 2016). This supposedly makes the brain’s reward system much less sensitive to both drug and also nondrug-related rewards (Hagele et al., 2015; Volkow et al., 2016).

Drug use can be motivated by the conditioned “reward” of the high as well as the desire to escape the discomfort associated with the aftereffects of use (Volkow et al., 2016). However, over time and with addiction, sensitization theory proposes that the motivation for taking the drug becomes increasingly associated with avoiding the discomfort associated with the aftereffects of the drug (e.g., depression, restlessness) and less and less associated with the “reward” of the high. Supposedly this explains why people often “chase” the same level of euphoria they experienced when they initiated the use of a drug, and why they continue to use the

drug even after they no longer experience it as enjoyable. As Volkow et al. (2016) comment on this process,

Persons with addiction frequently cannot understand why they continue to take the drug when it no longer seems pleasurable. Many state that they continue to take the drug to escape the distress they feel when they are not intoxicated. Unfortunately, although the short-acting effects of increased dopamine levels triggered by drug administration temporarily relieve this distress, the result of repeated bingeing is to deepen the dysphoria during withdrawal, thus producing a vicious cycle. (p. 317)

It is important to note that sensitization is a long-term and ingrained process, so simply stopping use of the drug and detoxifying will not immediately reverse this process (Volkow et al., 2016). In fact, there is an increase in relapse vulnerability that begins *after* about a month of drug abstinence (Pickens et al., 2011). This heightened relapse risk is called “incubation of craving” and cannot be explained through the withdrawal or neural suppression views of addiction, but can be explained via sensitization theory (Berridge & Robinson, 2016). It is thought that, in persons suffering from addiction, the chemical alterations in the brain associated with sensitization affect the ability to resist strong urges or to follow through on decisions to stop taking the drug, which explains why persons with addiction can be apparently sincere in their desire to quit using and simultaneously impulsive and unable to follow through with this decision (Volkow et al., 2016).

While sensitization includes a behavioral process, as chronic substance use initiates the process described in sensitization theory, it is believed that vulnerability to addiction varies due to the substantial individual variation in susceptibility to sensitization (Volkow et al., 2016). As an example only about 30% of people who use cocaine ever experience long-term issues with addiction (Berridge & Robinson, 2016), despite the fact that it is one of the most addictive of drugs (see Chapter 3). So some people may abuse drugs and never experience wanting, craving, and addiction, while others may abuse drugs and experience profound and chronic problems with wanting, craving, and addiction. The exact reasons for the variation in susceptibility to sensitization and supposedly addiction remain generally unknown, but it is likely that genetic, social, and environmental factors all play important roles at each stage of addiction—the initial use of drugs, sustained use of drugs, and eventual progressive changes in the brain that are typical of addiction (Volkow et al., 2016). This illustrates the overlap of the biological theories discussed in this chapter and the intersection of biological risk factors with the environmental risk factors proposed by the sociological theories discussed later in this chapter.

The vast majority of research on biological or quasibiological theories of drug use have focused on alcohol as the drug at issue, with much less attention directed to other substances. Although this remains (very) debated, some research goes so far as to suggest that a link to alcoholism may even be traced to a specific gene (e.g., Dick et al., 2004) or one of more than a dozen gene variants (Kranzler et al., 2019). Despite the fairly extensive research that has been conducted on genetics and alcoholism and other forms of drug dependence, it is important to recognize that this evidence is relatively weak and inconclusive. As Hart and Ksir (2018) summarize,

while we have evidence that genetic factors do play a role in determining which people become dependent, we do not know the specific genes involved, nor do we know the biological mechanisms by which these genes influence these behaviors.... For now we recommend caution when someone tries to give you a biological explanation of addiction, since none has become widely accepted or truly useful. (pp. 35–36)

IN FOCUS 2.1 CHEMICAL CHANGES IN THE BRAIN CAUSED BY ALCOHOL

Science has demonstrated that the brain of a heavy drinker adjusts to the steady flow of alcohol by producing less GABA (an inhibitory or calming neurotransmitter) and more glutamate (an excitatory neurotransmitter), and this results in feelings of anxiety and irritability. Over time, dopamine production also slows in response to hard drinking, and

eventually the person gets less pleasure out of everyday things (Glaser, 2015b). Eventually, these changes bring about a crucial shift: instead of drinking to feel good, the person ends up drinking to avoid feeling bad. The good news is that the damage can be undone if they're able to get their consumption under control (Glaser, 2015b).

Although the collective evidence on the connection between genetics and addiction remains relatively weak, research continues to direct a great deal of attention to the potential link between genetics and alcoholism. At least in part, this is because numerous studies have demonstrated that alcoholism tends to run in families, with individuals who have a close relative who is an alcoholic being more likely to become alcoholics themselves (Cadoret, 1995; Johnson & Leff, 1999; Schuckit, 1985, 1995). The question remains whether alcoholism runs in families because the child learned to become an alcoholic from his or her parents and environment or because the child inherited a gene or genes that predispose him or her to alcoholism. In actuality, it is likely that both of these explanations have some merit, and much of the research that has tried to assess the relative contribution of genetics and environment in patterns of alcoholism is based on studies of twins or adopted siblings.

Twins studies are based on the logic that because twins are born to the same parents at the same time, they are likely to experience very similar circumstances in terms of their family and upbringing, thus controlling for environmental effects to some degree. However, because identical twins originate from one egg and possess 100% genetic concordance, it is hypothesized that they should be more similar in terms of later alcoholism (and other behaviors) than should fraternal twins (who, like regular siblings, share 50% of the same genes). Most of the research examining these issues has found identical twins to be more similar than fraternal twins in terms of patterns of alcoholism and alcohol-related behaviors such as binge drinking, and this is particularly the case among males (Kendler, Heath, Neale, Kessler, & Eaves, 1992; Partanen, Bruun, & Markkanen, 1966; Pickens et al., 1991; Sher, 1991).

Adoption studies of alcoholism are similar. Although adoption studies involve many different types of research design, most examine people who were born to alcoholic parents but were adopted by nonalcoholic parents soon after their birth. These individuals are then compared with persons who were born to nonalcoholic parents and then adopted by nonalcoholic parents in terms of later alcohol-related behaviors. As individuals from both groups are raised by nonalcoholic parents, arguably, the main difference between them is that one group involves persons with at least one biological parent who was an alcoholic and who may have passed on some predisposition to alcoholism. As with the twin studies, adoption studies

IN FOCUS 2.2 A GENETIC CAUSE FOR POLITICAL VIEWS?

Twin studies have been employed to study the possibility that genetics influences one's political views. The largest study of this to date, a meta-analysis that examined data from more than 12,000 sets of twins, from five countries including the United States concluded that, on average, about 40% of the variation in political attitudes is linked to heredity (Hatemi et al., 2014). Much of the work on this topic has argued that base characteristics, which are highly correlated with conservatism or liberalism, such as how we process information, our tendency toward sensation seeking, and how we perceive threats drives political preferences (Zaraska, 2016). For example, some of the

current studies on the genetic links to political identity have found that “openness to experience” is correlated with liberalism and “conscientiousness” with conservatism (Zaraska, 2016). The primary hypotheses driving these works is that, historically, our ancestors had to make choices about how to respond when encountering groups of strangers, and considerations about whether these people represented potential new mates or trading partners had to be balanced against the risk of exposure to new disease or attack, and that these traits and tendencies were passed on and are expressed today as political attitudes (Zaraska, 2016).

have generally found support for the hypothesis that a predisposition to alcoholism may be inherited, with several studies finding adoptees whose biological parents were alcoholics more likely to demonstrate alcoholism later in life than other adoptees (Cloninger, Bohman, & Sigvardsson, 1981; Goodwin, Schulzinger, Hermansen, Guze, & Winokur, 1973; King et al., 2009; Schuckit, 1985; Sher, 1991).

Although the twin and adoption studies are generally supportive of some genetic association to alcoholism and should not be ignored, caution must be used when interpreting these findings. What these studies show is that there may be certain inherited characteristics that can put some individuals at a higher risk of alcoholism. However, genetic theories cannot explain why the vast majority of drinkers experience no serious problems or why the majority of people with this “genetic susceptibility” to alcoholism do not go on to become alcoholics. Thus, as Fingarette (1990) comments on the applicability of genetic studies:

These studies provide no evidence of a genetic factor in the largest group of heavy drinkers—those who have significant associated problems but are not diagnosable as alcoholics. Even among the minority who can be so diagnosed, the data suggest that only a minority have the permanent genetic background. And even in this category, a minority of the minority, studies report that the majority do not become alcoholics. (p. 50)

Several factors other than genetics may be responsible for the findings evidenced in the twin and adoption studies. Potential confounding factors include the role of peer influence, systematic differences in those selected to participate in the research, and the inability of the twin studies to fully control for environmental factors. Peer influence is a particularly important factor in twin studies, as identical twins may be more likely than fraternal twins to spend extensive time together and

to share peers, and peer influence is among the strongest predictors of substance use and abuse (Prescott & Kendler, 1995). The selection of research subjects may also be important to consider, as the twins and other siblings who are included in these studies may not be representative of those in the general population. For example, research subjects in studies such as these are often recruited from substance treatment centers, and twin/sibling pairs in which both individuals are alcoholics may be more likely to participate in treatment, attract the attention of researchers, and thus be included in studies on abuse (Prescott & Kendler, 1995). Perhaps the most important qualification for studies in this area is that despite their efforts, researchers have been unable to control for the influence of environmental differences between groups (whether identical twins, fraternal twins, regular siblings, or single adoptees). Thus, differences in substance use between groups, to the extent that they exist, cannot be traced directly to the role of genetics. For example, taking a study in which identical twins were separated and then raised apart, Smyer, Gatz, Simi, and Pedersen (1998) found that the twin who was raised by his or her biological parent(s) was more likely to drink excessively. However, they concluded that the effect of economics and education likely explained these differences, as people who give children up for adoption and people who adopt children are different in many ways, most notably age, income, and educational level, and these factors are likely to influence substance use by the parents and also their children.

The disease theory of addiction and alcoholism is typically credited to Elvin Jellinek. Following the publication of Jellinek's influential *The Disease Concept of Alcoholism* in 1960, the American Psychological Association began the use of disease terminology for alcoholism in 1965, and the American Medical Association followed suit in 1966. However, the survey data Jellinek used in his work were seriously problematic—even Jellinek himself acknowledged that little scientifically valid information could be obtained from these data. The surveys were distributed to approximately 1,600 Alcoholics Anonymous (AA) members through the AA newsletter, but Jellinek's analysis was based on the 98 surveys that were returned and determined to be valid, none of which involved responses from women (Fingarette, 1990).

As noted earlier in this chapter, a complete understanding of the cause of drug use and dependence requires attention to the genetic causes and correlates of drug use, but it is essential to remember that genetics plays a limited role in explaining human behavior. Only a relatively small fraction of people who use drugs ultimately become addicted. Although this will vary with many factors including drug type, various estimates have put this figure at 10% (e.g., Glaser, 2015b) to 30% (e.g., Berridge & Robinson, 2016). So, although long-term exposure to drugs is *necessary* for addiction it is by no means *sufficient*. Many genetic, social, and environmental factors contribute to addiction, so genetically determinist explanations of drug use will always be lacking insofar as they neglect the importance of social and environmental influences.

DISEASE THEORY

The disease model has a very long history (records of substance abuse/addiction being regarded as a “disease” date back more than 2000 years; White, 2000a) and is perhaps most easily described alongside its counterpoint, the moral model of addiction. The moral model of addiction views drug use and

excessive drinking as evidence of weak moral character. Advocates of the moral model regarded the disease theory as nothing more than a groundless excuse for bad behavior—they would tell people with substance problems that their problems are “all their fault.” Conversely, advocates of the disease model would tell the people, “none of this is your fault.” The truth of the matter likely falls somewhere in between.

Disease perspectives of drug use are somewhat similar to the genetic theories described above. Some versions of disease theory emphasize genetic/inherited factors in the etiology of addiction, while others emphasize more psychological processes and use the term *disease* metaphorically. Most significantly, all disease perspectives tend to phrase their discussion of drug use in medical terms and to contend that alcoholism and addiction should be viewed in the same way as traditional medical problems. Indeed, the disease perspective is often referred to as the medical model of substance use, particularly the version of disease theory advocated by AA. This model does not view the *use* of substances as necessarily pathological, but it does argue that for some people, use will inevitably result in abuse and addiction. The disease model is supposedly applicable to all psychoactive substances (and numerous other addictions as well, discussed below), but it has been applied mostly to alcoholism. According to this model, alcoholism is an incurable, degenerative disease that is often fatal if left untreated.

The view that alcoholism is a disease is not new. Evidence from ancient Greece and Egypt indicates that drunkenness was seen as a sickness of the body and soul and caretakers were recommended to help those suffering from “drink madness” (White, 2000a). The development of the disease model in America dates back to at least 1784, when noted American physician Benjamin Rush published a pamphlet titled *Inquiry Into the Effects of Ardent Spirits on the Human Body and Mind*, which referred to alcoholism in medical terms and proposed treatments for this “odious disease.” However, through the 19th and part of the 20th century, the disease model was largely ignored while a moral model of addiction dominated. In contrast to the disease model, the moral model viewed drug use and excessive drinking as evidence of weak moral character and regarded the medical model as simply providing an excuse for bad behavior (White, 2000a). One of the most vociferous early critics of the disease concept of addiction was Dr. C. W. Earle, who noted in *The Chicago Medical Review* in 1880:

It is becoming altogether too customary in these days to speak of vice as disease.... That is the responsibility of taking the opium or whisky ... it is to be excused and called a disease, I am not willing for one moment to admit, and I propose to fight this pernicious doctrine as long as is necessary. (as quoted in White, 2000a)

The puritanical sentiment regarding substance use reflected in the moral model was perhaps at its highest point in the United States early in the 20th century. In the first two decades of the 20th century, many states banned alcohol consumption, and eventually this spread to the entire nation with the Eighteenth Amendment to the Constitution that prohibited the production, sale, and consumption of alcohol (see also Chapter 9). Prohibition lasted from 1920 to 1933, and its repeal signified an ideological shift in the country back to the disease model of addiction. In part, the resurgence of popularity for the disease model is due to the formation of AA in 1935. AA was formed by two alcoholics, stockbroker Bill Wilson and physician Robert Smith, who proposed that alcoholism was an “allergy to alcohol” that could only be “treated” with total abstinence.

Although Wilson and Smith regarded alcoholism as a disease and insinuated that the origin of this “allergy to alcohol” was genetic, when pressed, they

In his co-authored book *The Sober Truth: Debunking the Bad Science Behind 12-Step Programs and the Rehab Industry*, Lance Dodes, a retired psychiatry professor from Harvard Medical School, looked at AA's retention rates along with studies on sobriety and rates of active involvement (attending meetings regularly and working the program) among AA members. Based on these data, he put AA's actual success rate somewhere between 5% and 8% (Dodes & Dodes, 2014).

acknowledged that the use of the term *disease* was somewhat metaphoric. For example, as Wilson commented on AA's use of the term *disease* with regard to alcoholism in 1960:

We have never called alcoholism a disease because, technically speaking, it is not a disease entity. For example, there is no such thing as heart disease. Instead, there are many separate heart ailments, or combinations of them. It is something like that with alcoholism. Therefore we did not wish to get in wrong with the medical profession by pronouncing alcoholism a disease entity. Therefore we always call it an illness, or a malady—a far safer term for us to use. (as quoted in White, 2000b)

According to Smith, the disease metaphor was necessary, as it was the only term that conveyed the enormity of the challenge that alcoholism presented for alcoholics in all phases of life. Smith once wrote a short note to Wilson arguing, “Have to use disease—sick—only way to get across hopelessness” (quoted in White, 2000b, the final word written in large letters and double underlined in original).

Around the time that AA was created, scientists at the Research Council on Problems of Alcohol (RCPA) were also advocating the disease model of alcoholism. Shortly after its formation at Yale University in 1938, the RCPA released a research report that argued for the validity of the disease model of alcoholism and noted, “An alcoholic should be regarded as a sick person, just as one who is suffering from tuberculosis, cancer, heart disease, or other serious chronic disorders” (as cited in Kurtz, 2002).

The most influential researcher at the RCPA was medical doctor Elvin Jellinek, who over a number of years developed and refined the disease model of alcoholism based on his surveys of AA members. This culminated in the publication of his *The Disease Concept of Alcoholism* in 1960, which remains among the most widely cited pieces of research on the disease model. However, it is important to recognize that the paths of AA and Jellinek were heavily intertwined. AA emerged under Wilson and Smith, who believed alcoholism was a disease because of their experience with it and the scientific “evidence” for the disease model is mostly attributed to Jellinek, who tested the propositions of the disease model (and, not surprisingly, found support for it), based on questionnaires he gave to AA members who had been told by AA that alcoholism was a disease! As Jung (2001) notes:

It should hardly be surprising, then, if the self-reports of self-labeled alcoholics fit the primary model proposed by AA and Jellinek very closely. Interestingly it also may be noted that none of the interview responses of females were included because they often differed with those provided by males. (p. 405)

Despite the lack of rigorous scientific evidence for the disease concept of alcoholism, in 1956, the American Medical Association declared alcoholism to be a treatable illness, and by 1966, partly because of Jellinek's work, both the American

IN FOCUS 2.3 VIDEO GAMING AS A DISEASE?

In 2019, the World Health Organization officially recognized “gaming disorder” as a behavioral addiction in its International Classification of Diseases (Kamenetz, 2019). In the United States, the *Diagnostic and Statistical Manual of Mental Disorders (DSM)*, considered the preeminent manual on mental disorders, does not currently recognize gaming or technology as possible sources of addiction, but considers “Internet Gaming Disorder” as a condition meriting further study (Kamenetz, 2019; see Chapter 3 on DSM revisions). Experts seem divided about whether addiction to gaming or other forms of technology merits classification as a form of behavioral addiction, but as 97% of teen boys and 83% of teen girls play games on some type of device (Perrin, 2018), if the condition is “real” it likely affects a great many people. A leading researcher in this area, Dr. Han-Dou-hyun from Chung-Ang University Hospital in Seoul, has proposed five warning signs of gaming or Internet addiction, which approximate indicators

used for other addictive disorders in the DSM V:

1. Disrupted regular life pattern. If a person plays games all night long and sleeps in the daytime, that can be a warning he or she should seek professional help.
2. If the potential gaming or Internet addict loses his or her job or stops going to school in order to be online or to play a digital game.
3. Need for a bigger fix. Does the gamer have to play for longer and longer periods in order to get the same level of enjoyment from the game?
4. Withdrawal. Some Internet and gaming addicts become irritable or anxious when they disconnect or when they are forced to do so.
5. Cravings. Some Internet and gaming addicts experience cravings, or the need to play the game or be online when they are away from the digital world (Sutter, 2012).

Psychiatric Association and the American Medical Association were referring to alcoholism as a disease.

As might be expected, there is considerable criticism of the disease model of addiction. Perhaps most fundamental is the fact that the disease model, particularly as it is advocated by AA, considers alcoholism a disease, but this classification is not based on any measurable physical effects on the body (as with physical diseases) or with measured thoughts, feelings, and behaviors (as is the case with mental illnesses; Peele, 1989). Rather, alcoholism is considered a disease *because it was called a disease* in the writings of Jellinek and others, who arrived at this conclusion based on a number of scientifically baseless propositions. As noted by Fingarette (1990), these assumptions include the following:

1. Heavy problem drinkers show a single distinct pattern of ever greater alcohol use leading to greater bodily, mental, and social deterioration.
2. The condition, once it appears, persists involuntarily: The craving is irresistible and the drinking is uncontrollable once it has begun.
3. Medical expertise is needed to understand and relieve the condition (“cure the disease”) or at least ameliorate its symptoms.

IN FOCUS 2.4 THE ABSTINENCE MANDATE OF THE DISEASE THEORY OF ALCOHOL USE DISORDER

J.G., a lawyer in his early 30s, used alcohol for years to soothe his anxiety. Eventually he decided to seek treatment and he knew what to do: check himself into a facility. J.G. spent a month at a center “where the treatment consisted of little more than attending Alcoholics Anonymous meetings.” J.G. tried to dedicate himself to the program even though, as an atheist, he was put off by the faith-based approach of the 12 steps, five of which mention God. Everyone there warned him that he had a chronic, progressive disease and that

if he listened to the cunning internal whisper promising that he could have just one drink, he would be “off on a bender.”

J.G. says it was this message—that there were no small missteps, and one drink might as well be 100—that set him on a cycle of bingeing and abstinence. “So I’d have one drink,” he says, “and the first thing on my mind was: *I feel better now, but I’m screwed. I’m going right back to where I was. I might as well drink as much as I possibly can for the next three days.*”

Source: As quoted in Glaser (2015b).

The view that addiction requires medical treatment has become increasingly pervasive over the years, and in part this is because of the tremendous profits associated with treating disease. Although people suffering from substance dependency may benefit from medical assistance, the list of addictions now includes a vast array of non-drug-related patterns of behavior including eating, child abuse, surfing the Web, exercise, shopping, gambling, sleeping, and sex (see In Focus 2.5). According to Peele (1989), this reflects an increasing tendency to medicalize behavior that previously was not viewed in a medical context (see also material on *DSM* revisions to “addiction” diagnostics in Chapter 3). Peele (1989) notes that this is done “by elevating the unhealthy side of normal functioning to the status of disease state,” and in doing so, medical health practitioners and others “who claim this mantle of science now *guarantee* the preeminence, pervasiveness, and persistence of sickness in everyday life” (p. 143).

PSYCHOLOGICAL THEORIES

Psychological perspectives of substance use tend to emphasize either the importance of reinforcement and punishment (which, as mentioned, will be discussed in the context of social learning theory) or the importance of a dysfunctional personality characteristic or type. Regarding the latter, we discuss self-derogation theory, which views substance use as one result of a personality defect or inadequacy, and problem behavior theory, which does not view substance use as necessarily pathological but as one symptom of a problem behavior pattern that is apt to cause the individual difficulties in terms of functioning in society.

The *self-derogation theory*, advocated most notably by Kaplan (1975), views substance use, particularly illegal drug use and the abuse of legal drugs, as pathological and the result of self-rejection and a lack of self-esteem (Kaplan, 1980).

IN FOCUS 2.5 “TANOREXIA”: AN ADDICTION TO TANNING?

Yes, this is a real thing. Researchers had considered why people tan regularly despite the known connection of ultraviolet light to skin cancer, and recent studies have found that tanning may result in dependence on beta-endorphin, a “drug-like opioid molecule” made by the skin when exposed to ultraviolet light (Hsieh, 2014). Studies have replicated this, and also found depression may increase the risk of becoming dependent on ultraviolet light (Dovey, 2017). Other research has concluded that a significant percentage of beachgoers may be “addicted” to tanning (Warthan, Uchida, & Wagner, 2005). The study surveyed 145 beachgoers using questions similar to those used to screen for substance abuse and dependency including:

- Do you ever try to cut down on the time you spend in the sun but find yourself still suntanning?
- Do you ever get annoyed when people tell you not to tan?
- Do you ever feel guilty that you are in the sun too much?
- Do you think you need to spend more and more time in the sun to maintain your perfect tan?

Researchers found that more than one-quarter of respondents showed signs of addiction to tanning by one standard, and using another measure, more than half of the survey participants were considered addicted (Warthan et al., 2005).

As Kaplan (1980) notes on this perspective, “The theoretical model is based upon the postulate of the self-esteem motive, whereby, universally and characteristically, a person is said to behave so as to maximize the experience of positive self-attitudes, and to minimize the experience of negative ones” (p. 129).

Thus, the theory contends that all social behavior, including drug use, is engaged in to maximize experiences that are positive to self-esteem and minimize experiences that are damaging to self-esteem. Deviant behaviors such as drug use are most likely to develop in individuals who are unable to develop a positive self-image from their interaction with family, school, and conventional peers. According to the theory, the more negative a person’s experience with conventional others, the more likely deviant behavior such as drug use becomes because all people seek responses from others that are positive and rewarding for their self-image. When positive affirmation is not provided for conventional behavior, the theory contends that individuals will pursue other identities and engage in deviant forms of behavior (e.g., drug use) as they continually seek positive affirmation and self-esteem.

Critics of self-derogation theory have pointed out that the emphasis the theory places on self-rejection is difficult to reconcile with the fact that illicit drug users tend to have *more* close friends than nondrug users (Goode, 1999; Kandel & Davies, 1991). Subcultural perspectives may be informative here. For example, classic research on youth subcultures (Cohen, 1955; Miller, 1958) has pointed out that youth who have failed to “measure up” to societal expectations will often seek out deviant subcultures. As discussed in detail below, subcultures are groups that

have adopted alternative values, and many “rejected” youth identify with these groups as the values prized in the subcultures (e.g., fighting ability, street smarts) are ones that they are more able to meet. Self-derogation theorists might similarly argue that youth who are negatively received, particularly by their peers, may suffer in terms of their self-esteem and thus adopt a deviant persona characterized by drug use, which they are then rewarded for by a deviant peer group or subculture. Among these deviant peers, bonding and intimacy may be particularly high, which would facilitate long-term friendships and reconcile findings that drug use may be motivated by feelings of self-rejection but that users often tend to have more intimate friends.

Scientific research has provided some support for this, including that by Hussong and Hicks (2003), who concluded on the relationship between self-esteem and delinquent-peer associations that

adolescents who experience negative feelings toward themselves may seek out a non-normative peer context that more easily offers a sense of acceptance and, subsequently, self-worth. Often, these peer contexts also offer greater access to substance-using friends who may be more likely to model, provide, encourage, and reinforce the adolescent's own involvement with alcohol and drugs. (p. 413)

Thus, to some degree, the self-derogation perspective may overlap with social learning theory (discussed below). This is particularly the case as more emphasis is placed on the importance of nonconventional peers, which are emphasized by learning theory, rather than self-rejecting feelings for understanding substance use and abuse.

Distinct from the self-derogation perspective but also psychological in nature is *problem behavior theory*, advocated most notably by Jessor and Jessor (Jessor, Graves, Hanson, & Jessor, 1968; Jessor & Jessor, 1975, 1977, 1980). This perspective regards substance use as just one of a number of problem behaviors that are symptomatic of a broader underlying condition. This problem behavior condition is evidenced by a set of distinct personality traits and attitudes that include, most importantly, a willingness to take risks and a commitment to unconventionality. Other traits that commonly characterize this personality type include a desire for independence, a tolerance of differences and deviant behavior, a tendency toward rebellion and pleasure seeking, and a susceptibility to peer influence (Jessor & Jessor, 1977). Problem behavior theory contends that some proportion of youth will develop these personality traits, and these traits tend to encourage behavior that conflicts with some of the social (and often legal) norms of society. Conduct such as substance use and abuse typically accompanies the problem-behavior personality traits, and this “is behavior that is socially disapproved by the institutions of authority and that tends to elicit some form of social control response, whether mild reproof, social rejection, or even incarceration” (Donovan, 1996, p. 380). Thus, it is important to recognize that this “problem behavior” condition is not necessarily negative or pathological, it simply refers to a tendency to engage in behaviors that society has deemed unacceptable to varying degrees.

It is also interesting to note that this is consistent with the propositions of the more sociologically oriented labeling theory. Labeling theorists have argued that victimless behaviors such as substance use are only considered “bad” because certain groups in society have defined or labeled the behavior as morally inappropriate. As Becker (1963) comments: “From this point of view, deviance is not a quality of the act the person commits, but rather a consequence of the application by others of rules and sanctions” (p. 9).

Similarly, problem behavior theory does not view individuals characterized by “problem behavior” traits as necessarily “bad” or dysfunctional, only more likely to engage in a variety of behaviors that may get them into trouble. It is also important to recognize that the same qualities that may cause problems for an individual, such as a proclivity toward risk-taking and unconventionality, are also related to imagination, independent and critical thinking, ingenuity, and creativity, important talents and abilities that may benefit both the individual and the broader society (Goode, 1999). Indeed, as Goode (1999) notes, whether these behaviors are problematic “has no meaning outside a specific social and cultural context, and a society that provides a place for eccentrics may also profit from their often considerable contributions—just as it often punishes for their unconventional behavior” (p. 98).

Thus, the same risk-taking tendencies that may encourage the individual to engage in potentially dangerous or illegal behaviors like substance use can also benefit society immeasurably in terms of the art, music, literature, science, and other advances produced by these individuals (Goode, 1999). Some of the most successful, creative, and amazing people in society have been characterized by this willingness to take risks, and this tendency may have even been *necessary* for their success, without which their contributions to society may never have been realized. Accordingly, whether these “problem behavior” traits are beneficial or problematic for the individual, and to what degree, is likely to vary. This will depend on the intensity or degree to which these traits are expressed, the nature of the society, and, perhaps most importantly, the social status of the individual (e.g., race, social class, gender), as these factors will influence how this problem behavior is perceived and reacted to by the broader society.

SOCIOLOGICAL THEORIES

In contrast to the perspectives discussed above, sociological theories of substance use and abuse place more emphasis on the role of social structure as opposed to individual or psychological factors. However, the extent to which individual factors are emphasized varies in sociological theory.

Differential Association, Social Learning, and Subcultural Learning Theories

An important sociological explanation for substance use is offered by the learning theories. Learning theories propose that all people are *tabula rasa* or “blank slates” and that all forms of behavior, including deviant behaviors like drug use, are *learned*. All sociological learning theories draw from Edwin Sutherland’s theory of differential association. Differential association theory proposes that when people “differentially associate” with people who value deviant behaviors, those people will learn pro-deviant values and be more likely to engage in deviance themselves. Sutherland also recognized that some relationships are more important than others, and the importance of messages received varies accordingly. According to Sutherland, learning is most influential when it is derived from associations that occur early in life (what Sutherland calls “priority”), last longer (“duration”), take place most often (“frequency”), and involve individuals with whom one is most closely attached (“intensity”; Sutherland, 1939).

IN FOCUS 2.6 ADDICTION AS A RESULT OF CHILDHOOD TRAUMA—THE WORK OF GABOR MATE

Gabor Mate is a prominent addiction theorist and physician who left a successful private medical practice to work with hardcore drug users in Vancouver, Canada's Downtown Eastside. A pioneer in safe injection facilities (see Chapter 8), and powerful voice for harm-reduction, Mate believes the root cause of addiction lies in childhood trauma and considers drug use "far more than a quest for pleasure, chronic substance use is the addict's attempt to escape distress" (Mate, 2010, p. 35).

Mate traces his perspective on addiction, and his own struggles with ADHD, depression, and compulsive shopping (he once spent more than \$8,000 in a 1-week, classical music CD-buying binge) to trauma in his infancy. As a baby in war-torn Budapest, which in 1944 was in the grip of Nazi occupation, Gabor and his young mother were attempting to survive their experience with the Holocaust. His grandparents had just been murdered at Auschwitz, his mother was alone and terrified, and Gabor tells how his mother called for the doctor, fearing baby Gabor was sick, because "he wouldn't stop crying." The doctor replied to this, "I'll come of course—but I should tell you, all my Jewish babies are crying" (in Hari, 2015, p. 154). Mate explains that because their mothers were justifiably terrified as people all around them were being rounded up and exterminated, the babies felt their mother's terror, and were suffering perhaps even more profoundly than their mothers because they did not understand the origin of the terror (Hari, 2015). Fearing for her baby's survival, Gabor's mother gave him to a total stranger with instructions to take him to a friend who lived outside the ghetto. Although Gabor was reunited with his mother 6 weeks later, after the Russians liberated Budapest, this separation felt like abandonment to the infant

(Waters, 2019). Mate (2010) believes that, as in his own case, all people must confront and open themselves to their trauma, or mental anguish and addiction are likely to result.

Says Mate of his experience working with people suffering with extreme addiction for more than a decade:

Addictions always originate in pain, whether felt openly or hidden in the unconscious.... Heroin and cocaine, both powerful physical painkillers, also ease psychological discomfort.... The very same brain centers that interpret and "feel" physical pain also become activated during the experience of emotional rejection.... The hard-core addict's life has been marked by a surfeit of pain. No wonder she desperately craves relief. (Mate, 2010, p. 36)

Mate also claims that these traumatic experiences yield changes in the brain chemistry of affected individuals through stress response, similar (in ways) to sensitization theory, although the origin of the brain chemistry alteration is not heavy substance use (as with sensitization theory) but early lifecourse trauma.

Critics, most notably addiction specialist Stanton Peele, contend that Mate's explanation for addiction is reductionist and ignores the extensive research evidence pointing to causes of addiction that are not grounded in trauma. Critics also point out that although childhood trauma is highly correlated with addiction in adulthood, many of those who experience such trauma do not develop addiction problems, and many with addiction problems have not experienced (at least documented) trauma (Peele, 2014). Mate contends that this is a mischaracterization and that "nobody's saying that every traumatized person becomes addicted. I'm saying that every addicted person was traumatized" (in Waters, 2019).

Social Learning Theory

In the late 1960s, Sutherland's classic differential association theory was substantially expanded upon by Ronald Akers (initially with Robert Burgess) to develop social learning theory (Akers, 1973, 1998; Burgess & Akers, 1968). In addition to drawing heavily on the principles of differential association theory, social learning theory addresses the importance of social–psychological processes such as imitation (Bandura, 1973, 1977) and operant conditioning (Skinner, 1953), making it more applicable for understanding substance use and abuse. Akers's recognition of the roles that reinforcement and punishment (i.e., operant conditioning) play in the learning process is important with regard to substance use since, unlike most other forms of behavior, drug use can be reinforced both socially and physiologically. Substance use may be reinforced socially, as in the case of positive feedback from one's friends for getting high, but it can also be reinforced in a nonsocial, physiological sense based on the effects of the drug. This physiological reinforcement can be negative, as in the case of drugs that can produce physical withdrawal symptoms, prompting another dose of the drug to alleviate the discomfort, or the reinforcement can be positive, as illustrated by the effects of the drug on the body to the extent that they are perceived to be pleasurable (Winfrey & Bernat, 1998).

Social learning theory also recognizes that whether the effects of a drug are viewed as enjoyable is at least partially dependent upon the learning process. This is illustrated by Becker's classic study on marijuana use, *Outsiders* (1963). Becker noted that upon smoking marijuana, users did not automatically feel high, as they first needed to learn how to perceive the effects of the drug. For example, in an interview, Becker asked one marijuana user if he got high the first time he "turned on" (or smoked marijuana), to which the user replied, "Yeah, sure. Although come to think of it, I guess I really didn't.... It was only after the second time I got high that I realized I was high the first time. Then I knew something different was happening" (as quoted in Becker, 1963, p. 51). Further, Becker noted that even among those users who learn to perceive the effects of marijuana and to recognize these feelings as being high, the user must identify the effects as pleasurable for use to continue. As Becker (1963) notes:

Maribuana-produced sensations are not automatically or necessarily pleasurable. The taste for such an experience is a socially acquired one, not different from acquired tastes for oysters or dry martinis. The user feels dizzy, thirsty; his scalp tingles; he misjudges time and distances. Are these things pleasurable? He isn't sure. If he is to continue maribuana use, he must decide that they are. (p. 53)

Learning theory acknowledges that the messages that inform a person's attitudes about the effects and desirability of drugs come from a variety of sources. Accordingly, whether substance use comes to be defined by an individual as desirable or justified depends a great deal on the behavior of those whom the individual values and most commonly interacts with. As Akers, Krohn, Lanza-Kaduce, and Radosevich (1979) note, "The principal behavioral effects come from interaction in or under the influence of those *groups which control individuals' major sources of reinforcement and punishment and expose them to behavioral models of normative definitions*" (p. 838, italics original).

Although the groups responsible for providing messages, reinforcement (both positive and negative), and punishment about drug use include extended family members, neighbors, religious and church groups, teachers, authority figures, and other influences in the community and mass media, it is parents and peers that have

the most pronounced effect in this regard (Akers, 1998; Akers & Lee, 1996). Thus, social learning theory recognizes that some people are much more important to us than others and are therefore much more influential in the learning process.

The two strongest influences on learning are typically parents and peers. Whether it is parents or peers that exert the strongest effect typically varies with age and the type of behavior in question (Warr, 1993). With respect to drug use, “the most important of the primary groups in the initiation and continuation of substance use among adolescents are peers, particularly close friends” (Akers, 1998, p. 172). This may be due in part to the fact that substance use is typically initiated during adolescence, a period of the lifecourse in which a large portion of one’s time is spent with peers. However, parents also play a key role in the learning process, and this is particularly the case prior to adolescence. Social learning theory acknowledges that the influence of parents is likely to be especially important for learning that occurs relatively early in the lifecourse. The core tenets of differential association posit that experiences and associations that occur earliest in life and involve individuals with whom one is most closely attached are apt to be the most significant in the learning process (Sutherland, 1939). Thus, substance use and abuse by one’s parents that is witnessed very early in the lifecourse and involves someone with which the individual is (likely) closer than any other is regarded by the theory as very important for understanding subsequent substance use by the individual. Further, social learning theory acknowledges that it is not necessary for parents to *directly* encourage substance use for the behavior to be learned and valued. Indeed, it is likely that such behaviors are more commonly learned through an informal process of observation and mimicry. As Akers (1992) notes:

Although parents may deliberately and directly socialize their children into deviant substance use, such direct tutelage is not necessary. It is more likely that family-fostered deviant use of alcohol, tobacco, marijuana or other drugs grows out of inadequately socializing the children into conventional definitions and abstinent behavior. (p. 172)

Numerous studies have found adolescent substance use to be associated with substance use and abuse by the adolescents’ parents (Adler & Lotecka, 1973; Hawkins, Lishner, & Catalano, 1990; Herd, 1994; Kandel, 1974, 1980). One example of this is a limited body of research that examines intergenerational drinking patterns. Among the earliest work in this area was Cahalan, Cisin, and Crossley’s (1969) study on American drinking practices. Using national survey data, Cahalan et al. (1969) found that parental drinking attitudes and drinking frequency were strongly associated with the subsequent drinking patterns of their adult children. Similar findings were identified by Fillmore, Bacon, and Hyman (1979), who concluded that adults’ drinking patterns were to some degree predicted by their parents’ frequency of drinking and attitudes about drinking.

More comprehensive studies on parental influences on drinking patterns were completed several years later with a series of longitudinal studies based on 420 sets of father, mother, and adult offspring from Tecumseh, Michigan (Gleiberman, Harburg, Di Franceisco, & Schork, 1991; Webster, Harburg, Gleiberman, Schork, & Di Franceisco, 1989). Studies using these data identified a positive association between parental drinking practices and the adult drinking patterns of their offspring. The studies also indicated that the drinking patterns of the parents and their adult children converged over time, so that children who initially drank more than their parents came to drink less in later life, and those that drank less

than their parents early on came to drink more. Research on these subjects also found abstaining parents to be more likely to have children who were abstainers both during their early adult years and also during later life (Gleiberman et al., 1991; Webster et al., 1989). However, studies conducted by this group also found what they referred to as a “fall-off effect.” Specifically, although there was a positive association between parental drinking and drinking by their adult offspring, adult offspring tended to moderate their drinking if they had parents who drank frequently, in high volume, and/or exhibited problems associated with their drinking, ostensibly in reaction to their parents’ experience (Harburg, Di Francisco, Webster, Gleiberman, & Schork, 1990).

It is important to recognize that although learning undoubtedly plays some role in these similar patterns of intergenerational substance use, this relationship may be due to many factors other than those directly attributable to learning from one’s parents. For example, heavy parental substance use may encourage substance use in childhood by impairing the ability of the parents to supervise and monitor children, which may facilitate substance use directly or indirectly by allowing children to more readily associate with delinquent peers (Johnson & Leff, 1999; Kumpfer, 1999; Lewis & Irwanto, 2001). Parental substance abuse has also been found to block parent–child communication and increase parent–child conflict, and it may facilitate child abuse. Each of these factors may be to some degree responsible for the similarity in substance use patterns by parents and their children (Barnes, 1990; Johnson & Leff, 1999).

It is also important to note that there is substantial variation in the influence of parents on their child’s substance use across social groups. Examining intergenerational substance use by race, Herd (1994) analyzed data on 1,947 Black and 1,777 white adults and identified important differences in the significance of parental drinking behavior for later drinking patterns. Her analyses found that parental drinking attitudes were not associated with the later drinking patterns of Black men, although they were highly correlated with the drinking behavior of white men (Herd, 1994).

As discussed above, social learning theory recognizes that parental behavior is important for understanding patterns of substance use, but during adolescence and early adulthood, it is one’s peers that are likely to exert the most prominent influence on substance use (Akers, 1998). In part, this may be because substance-using behavior typically begins in adolescence, and this is a time when increasing amounts of time are spent with peers. Indeed, the most consistent finding in research on adolescent substance use is the relationship between an individual’s substance use and substance use by that person’s peers (Duan, Chou, Andreeva, & Pentz, 2009; Elliott, Huizinga, & Ageton, 1985; Johnson, Marcos, & Bahr, 1987; Kandel, 1974, 1980; Warr, 2002). Further illustrating the importance of peers for early substance use is the fact that the use of alcohol and marijuana by youth occurs largely in a group context (Warr, 1996) and the fact that peer use of drugs appears to contribute to substance use via a number of mechanisms. For example, drug use among adolescents is strongly associated with the extent of perceived drug use by peers, self-reported drug use by peers, and tolerant attitudes about drug use among peers (Kandel, 1980; Warr & Stafford, 1991).

With respect to these findings, a common critique of the learning model addresses the causal ordering of the relationship between delinquent peers and delinquency. Critics of the learning approach to substance use point out that substance users are likely to seek out and identify with other substance users. Thus, in opposition to the propositions of learning theory that people learn to use drugs

once they come into contact and associate with drug-using peers, it may be that drug use actually comes first. Although social learning theorists recognize that “birds of a feather flock together,” the theory proposes, “The sequence of events in which deviant associations precede the onset of delinquent behavior will occur more frequently than the sequence of events in which the onset of delinquency precedes the beginning of delinquent associations” (Akers & Lee, 1996, pp. 321–322).

Thus, the emphasis of learning theory is on associations with delinquent peers, and this relationship has been more empirically supported than the alternative argument (Chilcoat, Dishion, & Anthony, 1995; Menard, Elliott, & Wofford, 1993; Oxford, Harachi, Catalano, & Abbott, 2001). However, evidence demonstrates that substance users are likely to seek out others like them as well, possibly due to a lack of attachments to family, school, and other conventional institutions (principles elaborated on by control theory). Thus, it may be best to consider learning theory as a partial explanation for substance use and one that is complementary to control theory rather than as seeing these theories as rival explanations of drug use (discussed in more detail below).

Subcultural Learning Theories

Subcultural learning theories are very similar to the learning theories discussed above, but the key difference is that in the learning process, the primary reference group, or the group that the individual learns from and models more than any other, is the members of the subculture. Subcultures are groups of people that hold patterns of norms and values that are in some way distinct from the norms and values held by the broader society (e.g., favorable versus unfavorable attitudes toward drug use). Unlike countercultures, subcultures also hold many of the same values of the larger society in which they reside, and because of this subculture, members often feel pressure to conform more completely to the norms and values of the broader society (Hebdige, 1979). However, subculture members tend to interpret the world according to the unique norms and values present in their subcultures (Short, 1968), and because of this, the behaviors that are learned, valued, and respected in a subculture (e.g., drug use) are often not approved of in broader society.

Field studies provide tremendous insight on drug subcultures. For example, Goode’s *The Marijuana Smokers* (1970) documents the ways in which subculture members maintain their shared values and bonds in the face of resistance from the broader society. Goode found several themes to characterize marijuana-using subcultures, including: that drug use typically occurred in a group setting; that drug use generally occurred in the presence of intimates or friends but not with strangers; that group members viewed drug use as a legitimate basis for identity; and that social bonds among members were maintained and reaffirmed through drug use. Goode (1970) also noted that there was a high degree of value consensus in the subculture and that value convergence increased with continued subculture involvement.

Similar studies have been conducted on the heroin subculture, which is one of the most notable and enduring drug subcultures in the United States. Research on chronic heroin users has noted that most are able to quickly identify others like them and that the trait of being a heroin user is often sufficient to encourage companionship as users seek allies in a world where they are typically despised by the broader society (Waldorf, 1973). Based on interviews with chronic

heroin addicts (who referred to themselves as “dope fiends”), Waldorf (1973) concluded that:

As with other outcast or persecuted groups, both criminal and noncriminal, dope fiends band together ... dope fiends claim they can spot another dope fiend with only the most superficial contact, in many instances without talking to the other person.... Most of us gravitate towards persons like ourselves—persons who share age, attitudes, interest, or occupations—because we find them easy to communicate with. Dope fiends find similar comfort among other dope fiends. (p. 21)

Another interesting examination of the heroin-using subculture is provided by Faupel’s (1991) field study of chronic heroin users in Wilmington, Delaware. Among other things, Faupel examined the criminal behavior of heroin users, concluding that members of a heroin subculture often develop skills in a wide variety of criminal offenses designed to generate the money necessary to support their heroin habit (e.g., robbery, burglary, shoplifting, forgery). Subculture members were often found to pass on these criminal skills to other members of the subculture. However, Faupel also concluded that the common view of this group as completely without ethics was inappropriate despite their criminal involvement. For example, Faupel noted that criminal exploitation, which was regarded in the subculture as “taking care of business,” was considered acceptable only if certain rules are followed. Most important was the rule that the victim be someone outside the heroin-using world, as those who were “in the life,” or part of a heroin-using subculture, were considered off limits for criminal victimization by other heroin users (Faupel, 1991).

The ethical code of the heroin subculture also extended to the “proper” use of heroin. For example, Faupel found that heroin users had strong rules regarding where and when it was appropriate to use heroin. As noted by Faupel (1991):

There is perhaps no normative prescription as pervasive in the heroin-using subculture as that against turning young children onto drugs ... the normative proscription extends beyond selling or sharing drugs with children, however. The study participants were nearly unanimous in their contention that turning anyone on who had not used drugs before, regardless of the person’s age, constituted a violation of their code of ethics. (pp. 86–87)

As with the norms surrounding the selection of criminal victims, these unique norms surrounding drug use illustrate the point that rather than being *without* values or norms, drug subcultures clearly have a normative code, even though it is one that would be considered deviant and inappropriate in broader society.

Some subcultural theories propose that individuals learn deviant behavior such as illegal drug use once they come into contact with the subcultural group (consistent with learning theory), while others are more flexible with respect to this point. For example, the “selective interaction/socialization” model of substance use proposed by researchers such as Goode (1970) and others assert that drug users are “attracted to particular individuals and circles—subcultural groups—because their own values are compatible with those of current users” (Goode, 1999, p. 107). This model suggests that the link between substance use by peers and substance use by an individual is not a unidirectional or either–or type of relationship but rather that drug users tend to associate with other drug users, and once these associations develop, messages and behaviors encouraging substance use are learned in this distinct subcultural setting (Goode, 1999).

IN FOCUS 2.7 THE USE OF SLANG IN DRUG SUBCULTURES

A trait common to most drug subculture is *argot*, a specialized vocabulary involving slang terms with meanings that are not commonly known outside the subculture (Goode, 1970). Illustrating this is Inciardi's (1993) ethnographic study titled "Kingrats, Chicken Heads, Slow Necks, Freaks, and Blood Suckers: A Glimpse at the Miami Sex-for-Crack," which examines the prostitution-for-drugs trade.

Documenting the *argot* present in this subculture, Inciardi notes that women who will trade sex for crack are commonly called *freaks*, *gut buckets*, *rock monsters*, or *skeezers*. Defining the terms used in the title of his article, Inciardi (1993) explains that *kingrats* are crack house owners; *chicken heads* and *slow necks* are prostitutes who perform oral sex for crack.

Social Control/Bonding Theory

Social control or social bonding theories are different from the perspectives described above, as they explain deviance and, by extension, substance use and abuse as a natural tendency of humans that will be realized if the individual is not adequately socialized into conformity. The most widely applied and recognized control theory is Hirschi's (1969) social bonding theory, which argues that people will engage in deviance such as drug use and abuse to the extent that their "bond to society is weak or broken" (p. 16). This bond reflects a person's integration into conventional society and includes relationships to family, spouses, children, conventional friends, employment, education, religion, community organizations, and other institutions in society. According to social bonding theory, the greater the number and strength of the ties that bind the individual to conventional society, the less likely it is that the individual will engage in deviance such as illegal substance use and abuse.

The theory proposes that four principal elements constitute the social bond—attachment, commitment, involvement, and belief. Attachment refers to feelings of sentiment and affection for others and is said to be important for understanding drug use because it affects how much a person cares about others' opinions of him or her and thus how constraining these opinions are. When attachment is low, the opinions of others are much less effective at preventing people from engaging in behavior such as drug use. The second element of the bond, commitment, refers to the extent to which a person is invested in society in terms of educational attainment, occupational advancement, wealth, and the like. Social bonding theory recognizes that as commitment increases, a person has more to lose from engaging in deviant acts, particularly those acts that might bring the attention of law enforcement, such as the use of illegal drugs. The third element of the bond, involvement, refers to the amount of time a person spends engaged in conventional activities (e.g., after-school sports). The more time that is spent engaged in conventional activities, the less time there is available for engaging in unconventional activities such as drug use. The final element of the social bond, belief, involves the extent to which a person holds and endorses conventional rules and norms in society. Each of these elements of the social bond is related to the

other, so it is probable that the strengthening of one bond (e.g., commitment in the form of a new job) will result in strengthening of the other (e.g., involvement in the form of more time spent in work as a result of the new job) and vice versa.

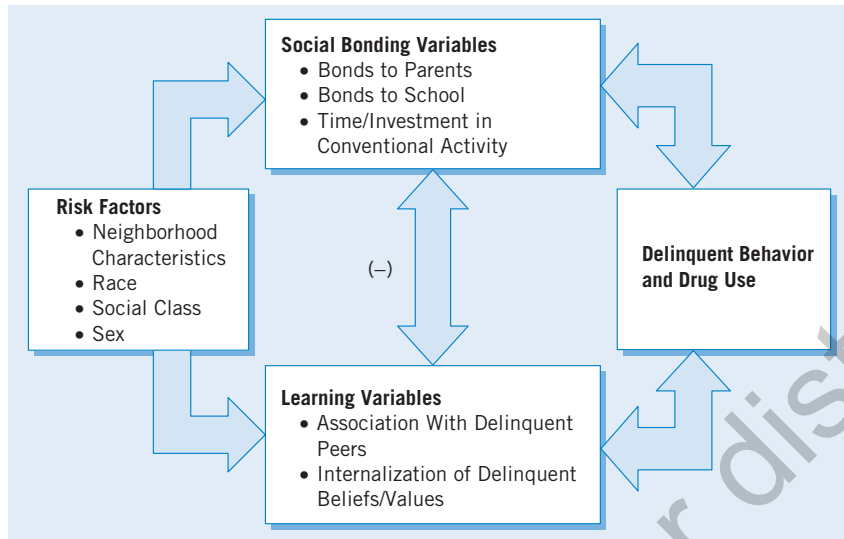
There is extensive research that examines the relationship between drug use and the conventional institutions described by social bonding theory (e.g., school, work, family, religion), but there is less research that directly tests the ability of social bonding theory to predict substance use and abuse. Of those studies that have been conducted on substance use, few have provided support for social bonding theory (see, for example, Arnett, 1998; Burkett & Warren, 1987; Cochran & Akers, 1989), and this contrasts sharply with the relative abundance of support for the theory with respect to crime and deviance more generally (Akers & Sellers, 2009). The lack of support for social bonding theory in the area of substance use appears to be due, in large part, to the fact that this theory deemphasizes the importance of peer associations for substance use (as peers are central to learning theory), and peer associations have proven to be one of the strongest predictors of drug use (Duan et al., 2009; Elliott et al., 1985; Johnson et al., 1987; Kandel, 1974, 1980; Warr, 2002). Accordingly, when social bonding variables such as family attachment are included alongside peer variables in studies of substance use, they are often dominated and obscured by the more powerful peer-related influences.

While family factors may be less salient for an understanding of substance use than peer influence, some studies have found family-related social bonding variables to remain a relevant, if weaker, predictor of substance use (Chilcoat et al., 1995; Menard et al., 1993; Oxford et al., 2001). In part, the effect of these social bonding variables is important for understanding substance use because of the influence they have on peer selection. That is, attachment to parents and also to conventional societal institutions such as school and religion tends to strongly influence people's choices of friends, and these peer groups, once chosen, are central for understanding subsequent drug use patterns by the individual (Faupel, Horowitz, & Weaver, 2004).

With respect to these relationships, it seems reasonable that the bonds to conventional institutions such as family and work may be more important for understanding substance use and abuse than is suggested by many studies. The vast majority of studies on substance use examine adolescents and young adults, particularly those in their high school and college years (Beauvais, 1998), with much less research examining substance use by subjects who are in their early adolescent years (e.g., 11–13) or at ages beyond early adulthood (e.g., the late 20s and older). This is important because both early adolescence and later adulthood represent periods of life when peer influence on drug use is comparatively less salient (Akers, 1998; Warr, 1996).

Integrated theories such as Thornberry's interactional theory and the social development model of Hawkins, Catalano, and colleagues are especially useful for understanding the interdependency of peer influence and traditional social bonds. To account for delinquent behaviors including drug use, each of these perspectives incorporates key structural and individual risk factors (sex, race, class, neighborhood characteristics) and variables from differential association, social learning, and social control theories and emphasizes the interdependency of learning and control variables (i.e., peer influence versus attachment to parents, family, and work) in delinquent/drug abuse outcomes (Catalano & Hawkins, 1996; Catalano, Oesterle, Flemin, & Hawkins, 2009; Thornberry, 1987). Interactional theory proposes that youth who are not adequately bonded to their parents are more likely to experience weakened bonds to school (and vice versa), which might facilitate

Figure 2.1 Conceptual Model of Interactional Theory



association with delinquent peers and the learning of antisocial attitudes and behaviors. Accordingly, the association with delinquent peers in youth and/or adolescence will increase the likelihood of weak conventional attachments later in life, thus facilitating deviant behaviors such as illegal drug use and crime.

Interactional theory is important for an understanding of the etiology of substance use and abuse because it reconciles differences in the social control and learning approaches and incorporates them into a single theoretical model (see Figure 2.1). When social control variables are regarded alongside learning variables, research has found social control theory relevant to substance use and abuse. For example, Oxford et al. (2001) found that the strongest predictor of initiation into substance use in early adolescence was delinquent peers, but also that family variables such as parent-child attachment played an important role in substance use, both directly by preventing the initiation of substance use and indirectly by limiting involvement with antisocial peers. Findings such as these suggest that future work on control theory and substance use may be best directed at examining how control variables such as family attachment interact with peer-related variables to predict substance use.

Lifecourse/Age-Graded Theory

Lifecourse theories (sometimes called developmental theories) of deviance are designed to explain “pathways through the age differentiated life span” (Elder, 1985, p. 17). When applied to substance use, lifecourse theories are most suited to explaining the stability and change in the occurrence of this type of behavior over the lifecourse. Put simply, a substantial percentage of people engage in deviant behavior such as illegal drug use during adolescence and early adulthood but “age out” of this behavior. This represents the change in the likelihood of deviance over the lifecourse because people age into and then out of this form of behavior.

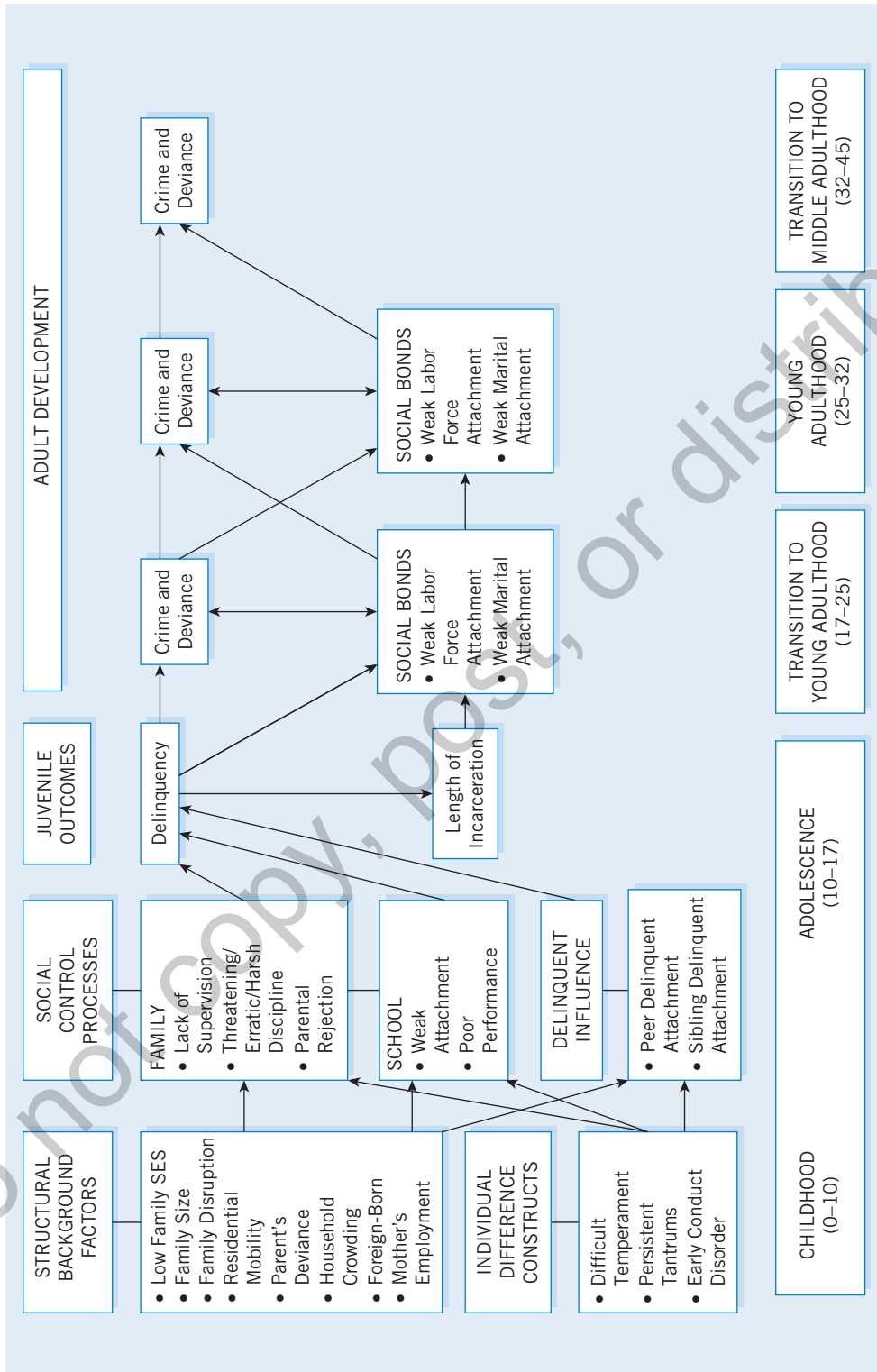
Conversely, a small portion of people who engage in illegal drug use during adolescence *never* age out of this type of behavior but instead continue their drug use late into adulthood, representing the stability in deviance over the lifecourse. So lifecourse theories of deviance provide an explanation for why most people age into and then out of deviance, but some people never do.

An important lifecourse theory of deviance is Sampson and Laub's age-graded theory. As with most lifecourse theories, age-graded theory proposes that there are important life trajectories (or "pathways"), transitions, and turning points that occur over the lifecourse (Elder, 1985). A *trajectory* is a pathway of development over the lifespan that involves a consistent pattern of behavior, such as a marriage, parenthood, or a criminal or drug-using career (Sampson & Laub, 2003). Trajectories are characterized by a series of *transitions*, which are periods of a trajectory that are marked by key life events such as getting married or entering college. Many (not all) transitions are age graded, meaning that they tend to occur at relatively predictable times in the lifecourse. For example, entering college or the labor force most often occurs immediately after adolescence. Much lifecourse research focuses on the duration, timing, and ordering of these key life events and the implications that this has for the lifecourse (Sampson & Laub, 2003). When a transition occurs, the way in which an individual adapts to it can lead to different trajectories, and a *turning point* occurs when the adaptation to a transition leads to a very different trajectory (or life pathway). As an example, an important transition that occurs for most people in their 20s or 30s is parenthood. If, after making the decision along with his spouse to have children, a new father embraces his role as a parent, it would facilitate stability in his marriage and life trajectory. Conversely, if he rejected his duties as a father, it would likely represent a turning point, as his relationship with his spouse would likely deteriorate and potentially collapse, and he may not develop any relationship with his child. This is a turning point because the rejection of parenthood sent him down a new life pathway (trajectory).

Age-graded theory is heavily influenced by social control theory, particularly for predictions of deviance after adolescence, but it also addresses the importance of learning theory, social structural factors, and early lifecourse temperament variables. As is illustrated in Figure 2.2, there are roughly five stages of development important for understanding patterns of deviance such as drug use (after age 45 years, it is less common for a person to alter their trajectory). The first of these lifecourse stages is *childhood*, roughly ages 0–10 years, and during this period, the most important variables are a number of structural and individual risk factors that predispose children to getting into trouble, particularly with their parents and teachers. These risk factors are things that a child is born into, whether environmental—like poverty, being from a single-parent family, or living in a neighborhood characterized by criminogenic circumstances—or individual characteristics like temperament problems, impulsivity, and conduct disorders. Upon reaching *adolescence*, roughly ages 10–18 years, the aforementioned environmental and individual conditions predispose adolescents to delinquent peer attachment and weak social bonds, particularly to family and school. As described earlier in our discussion of interactional theory, a reciprocal process can occur in which weakened conventional bonds put the adolescent at high risk for delinquent influence (e.g., drug use, criminal behavior), and the delinquent behavior, particularly if identified and resulting in a formal sanction like incarceration, can further weaken the bonds to family and school, intensifying the cycle of deviance.

In the late teens and early 20s, people typically enter the *transition to young adulthood*, and social bonds—particularly bonds to education, the labor force,

Figure 2.2 Sampson and Laub's Age-Graded Theory



Source: Sampson, R., & Laub, J. (1993). *Crime in the making: pathways and turning points through life* (pp. 244-245). Cambridge, MA: Harvard University Press.

marriage, and parenthood—are the primary factors influencing criminal and deviant behavior such as drug use. As noted in our discussion of social control theory earlier, individuals who have these bonds, like a college education, a good job, or a family, are protected from deviance in part *because they have much more to lose* than those who don't have these bonds. These bonds are most often formed in young adulthood (roughly ages 17–32 years), and if not present by this point, their formation becomes less likely as one ages into middle and later adulthood. Incarceration at any point makes it less likely that people will be able to develop bonds in adulthood (like maintain a marriage or a career-track job), so incarceration is associated with an increased likelihood of continued drug use/offending (Sampson & Laub, 2003). Finally, note that no matter how many “strikes” a person has against him or her, the person can become bonded or rebonded to conventional society, and this is typically the case when someone “turns it all around.” Common examples include a young person who has been in trouble with the law prior to joining the military, which brought stability to this person's life, or someone who has had drug problems getting married and having a family and leaving drugs behind. For these individuals, joining the military and marriage/parenthood represent turning points in their pathway as they became bonded to conventional society.

Anomie/Strain Theories

Anomie or strain theories propose that when societies are characterized by an imbalance in their social order, it creates conditions favorable to crime and deviance such as substance use. Robert Merton's theory of anomie (1938, 1957) is the most well known of these theories, and it has had tremendous influence on the study of deviance. According to anomie theory, there is a discrepancy between the valued goals in American society, such as monetary success, and the legitimate means to achieve these goals, such as high-paying jobs. Not everyone can succeed in his or her pursuit of the American Dream, but everyone wants to succeed (at least initially), and this discrepancy between goals and means will generate strain (hence, strain theory). People seek to alleviate this strain by adapting to it in a variety of ways. According to Merton, one way people could alleviate strain was to use and abuse illegal drugs and alcohol, an adaptation Merton regarded as a form of “retreatism” (1957, p. 153). Subsequent research, including that based on Cloward and Ohlin's (1960) subcultural version of Merton's theory, has found little support for Merton's anomie theory when applied to drug use and abuse (this is not the case for other forms of deviance), and this is largely due to the fact that the theory relies almost exclusively on poverty or failure in economic terms as the key explanatory variable. As will be discussed in more detail in Chapter 5, “Patterns of Illegal Drug Use,” social class is, at best, a weak predictor of substance use (legal and illegal), meaning that the rich, middle class, and poor use drugs at very similar rates. Because of this, anomie theory is not a robust explanation for substance use and abuse.

Although the almost complete reliance on economics as the primary source of strain in society likely makes anomie theory inappropriate for understanding broad patterns of substance use and abuse, theoretical work by Agnew (1992) has significantly expanded upon strain theory, making it more applicable to drug use. Agnew's general strain theory is much broader than Merton's original theory in that it addresses strains other than those generated by a disjuncture between goals and means. That is, in addition to addressing the importance of monetary strain in what Agnew refers to as a *failure to achieve positively valued goals* (of which economic

success is only one), Agnew also addresses strain resulting from the *removal of positively valued stimuli* (e.g., the loss of a family member) and from *the confrontation with negative stimuli* (e.g., repeated academic failure; Agnew, 1992). Agnew (1992) notes that each source of strain “increases the likelihood that individuals will experience one or more of a range of negative emotions,” including “disappointment, depression, fear, and anger” (p. 59). According to the theory, the strained individual must adapt in order to deal with the strain, and Agnew (1992) notes that many elect to manage their negative emotional states through drug use.

According to general strain theory, the use of substances is particularly effective at managing strain, as it functions to minimize strain-related distress, alleviate depression and despair, and produce positive emotions (Agnew, 1992; Brezina, 1996). This is consistent with more psychologically oriented perspectives such as the stress-coping model (Wills & Shiffman, 1985), the tension-reduction hypothesis (Sher & Levenson, 1982), and the self-medication hypothesis (Khantzian, 1985), which all recognize that people frequently use psychoactive substances to relieve tension and distress or to improve their mood. Empirical research also supports the efficacy of this practice, including that by Kaplan, Tolle, and Yoshida (2001), which found that substance use was negatively related to later violent acts as people used substances to “assuage distressful-self-feelings” (p. 205). However, general strain theory also acknowledges the potential of substance use to exacerbate existing psychological strain, as alcohol and illicit drug use may create new problems and aggravate existing ones as substance use is increasingly relied upon to cope with stress. To the extent that substance use is effective (or thought to be effective) at managing strain, it may be perceived by the individual as a temporary or immediate solution to problems (Agnew, 1992).

It is also likely that the economic component of general strain theory (again, derived largely from Merton’s anomie theory) is useful for understanding substance use (and especially substance *abuse*) among *certain* segments of the population, despite the inability of research to identify empirical support for the theory in the past. Research has found that the relationship between economics and substance use may not be the same across racial/ethnic groups, in part because there are important interactions between race/ethnicity, income/poverty, and substance use (Barr, Farrell, Barnes, & Welte, 1993). For example, Herd (1994) found that for white men, the prevalence of alcohol use increased with income, but for Black men, the prevalence of alcohol use decreased with income. Barr et al. (1993) reached similar conclusions, finding increased income to substantially decrease alcohol consumption, alcohol-related problems, and illicit drug use for adult Black males but to have little or no effect on alcohol consumption, alcohol-related problems, and illegal drug use for adult white males. Examining only alcohol-related problems, Jones-Webb, Hsiao, and Hannan (1995) found that Black people of lower socioeconomic status were much more likely to report alcohol-related problems than were white people of lower socioeconomic status and that the magnitude of these problems had increased over time. However, similar findings were not identified for white people of lower socioeconomic status (Jones-Webb et al., 1995). Finally, research conducted by Jones-Webb, Snowden, Herd, Short, and Hannan (1997) examined alcohol problems experienced by Hispanic, Black people, and white men and concluded that neighborhood poverty was much more harmful for Black people as compared to Hispanic and white people of lower socioeconomic status once alcohol consumption was controlled for. The study concluded that the social isolation, employment, and marital characteristics of Black people of lower socioeconomic status distinguished them

from comparably poor Hispanic and white people of lower socioeconomic status, resulting in greater substance-related problems for Black people. Each of the studies discussed here illustrates the importance of economic strain for substance use and abuse when race is taken into account.

Research on class polarization and social isolation by William Julius Wilson (1987, 1996) may be particularly useful for understanding the disparate patterns of drug use and abuse by race. According to Wilson, as a result of economic transformation and other macrostructural processes in the United States, middle- and lower-class minority-group members may be gradually growing more isolated from one another. Indeed, research has noted that while the portion of the middle class comprising minority-group members has grown in recent years, due in part to an increasing commitment to civil rights and as a result of programs like affirmative action, inner-city minority communities have become more isolated and impoverished (Massey & Denton, 1993; Wilson, 1987). The cumulative disadvantage present in these communities also clearly distinguishes minority poverty from white poverty. As Wilson (1987) has noted regarding the difference between white people and Black people who live in poverty, white people living in poverty live “in areas which are ecologically and economically very different from poor Blacks ... with respect to jobs, marriage opportunities, and exposure to conventional role models” (pp. 59–60). In addition to these factors, substance use and abuse by lower-class minorities may be exacerbated due to the absence of conventional social institutions and coping resources in impoverished communities. For example, as one poor resident of inner-city Chicago says about youth drug use in his or her community:

They're in an environment where if you don't get high you're square.... I watched kids, I saw their fathers ruined, and I seen 'em grow up and do the very same thing.... The children, they don't have any means of recreation whatsoever out here, other than their backyards, the streets, nothing.... The only way it can be intervened if [sic] the child has something outside the house to go to, because it is—just go by the environment of the house, he's destined to be an alcoholic or drug addict. (as quoted in Wilson, 1996, pp. 56–57)

The availability of conventional recreation, entertainment, and stress-coping resources is essential for limiting substance use and abuse. General strain theory recognizes that only some of those people who are strained will resort to substance use and abuse to alleviate their strain. The obvious reason for this is that people can elect to adopt a variety of alternative, nondrug coping strategies to deal with their strain. However, these conventional coping resources are not equally accessible to all. As class and race are inexorably linked in American society, minorities are not only more likely to encounter many key sources of strain, but they are also less likely to have access to the resources that enable or facilitate conventional coping. This includes access to conventional recreation and entertainment options (e.g., shopping malls, rec centers, sports clubs, movie theaters, and libraries); coping and treatment resources (e.g., medical care, professional counseling, and substance treatment centers); and access to institutions that make psychological coping more easy (e.g., work and education; Peterson, Krivo, & Harris, 2000; Wallace, 1999a; Wallace & Bachman, 1991; Williams & Collins, 1995). Thus, there is substantial evidence to suggest that economic strain is useful for understanding patterns of substance use and especially substance abuse, but it is predominately or only applicable to the most disadvantaged in society.

Social Conflict Theory

As compared to strain theory, social conflict theory is even more structural or macro in nature. Most research in the area of drug use and abuse that is grounded in a conflict perspective examines the creation, enforcement, and consequences of laws designed to regulate drug use. Because of this, conflict theory as applied to drug issues might be better seen as a conflict theory of law formulation and enforcement as opposed to theory that attempts to explain the drug-using behavior of individuals, as do the other theories described in this chapter.

Although there are many forms of conflict theory, at base they all assume that the existing social order is not a product of consensus and mutual benefit but rather a function of power differentials in society. These perspectives recognize that societal resources are limited and contend that opposing groups are in a constant struggle for a greater share of the resources and the power that comes with them. As groups struggle to gain a greater share of the limited societal resources, some groups in society are inevitably marginalized, and these are the groups that will suffer the most in the existing social order in terms of living conditions, wealth, education, employment opportunity, health, criminal victimization, and almost every other indicator of social well-being. Additionally, because the most powerful in society control the law and many sources of influence (e.g., television, newspapers, political lobbyists, etc.), many of the laws and values in society tend to reflect the interests of these groups and benefit them. While conflict theory recognizes that laws against crimes such as murder and assault tend to be beneficial to all, and that some laws will be passed “which reflect the interests of the general population and which are antithetical to the interests of those in power” (Chambliss, 1969, p. 10), they also recognize that some laws and policies may benefit those in power to the detriment of the powerless. It is in this regard that conflict theory may be most applicable for an understanding of substance use and the consequences that are often associated with it.

As discussed in Chapter 1, psychoactive substance use is universal across time and society, and as will be discussed in later chapters, punitive policies designed to control substance use are generally counterproductive if their intent is harm minimization. Why then do punitive policies surrounding drug use and abuse exist? Conflict theorists would argue that laws against morally prohibited and victimless crimes such as substance use provide those in power with the necessary latitude to enforce the law when and how they see fit. That is, although substance use is ubiquitous in society, with even illegal substances being used broadly across all social and economic groups (see Chapter 5), the illegal status of certain drugs enables coercive force to be brought to bear against the poor and powerless when those in power see it as beneficial or necessary. To support this, conflict theorists point to the vastly disproportionate manner in which laws against substance use are enforced. Policies that prohibit and regulate certain drugs are particularly detrimental to poor minorities (Alexander, 2010; Tonry, 1995), which, as discussed in Chapters 5 and 6, is problematic given the comparable use patterns for legal and illegal drugs shown by white people and underrepresented minority group members.

Research examining drug issues from a conflict perspective includes that by Chambliss (1994) and Mosher (2001), who note that policing practices, particularly those focused on drug offenses, have been exceptionally harmful to poor minority communities. As Chambliss (1994) notes:

The intensive surveillance of black neighborhoods ... has the general consequence of institutionalizing racism by defining the problem of crime generally, and drug use in

particular, as a problem of young black men.... Young African-American and Latino men are defined as a criminal group, arrested for minor offenses over and over again, and given criminal records which justify long prison sentences. (p. 183)

So, despite the fact that the use of illegal drugs (including cocaine—the drug targeted by many of these proactive policing efforts) is not more likely among minorities, the consequences of drug policies fall much more heavily on the minority population. As conflict theorists point out, one of the reasons for this inequity is that drug arrests are commonly carried out in poor, minority communities because such practices are socially and politically palatable *only so long as the person arrested is relatively powerless*. As Chambliss (1994) comments on this, in contrast to drug arrests among the lower class, “Arrests of white male middle class offenders (on college campuses for example) are guaranteed to cause the organization and the arresting officer strain, as people with political influence and money hire attorneys for their defense” (p. 192, see also Alexander, 2010).

Accordingly, affluent groups are not targeted for drug arrests despite their comparable use patterns, with the end result being that even though there are many times more white people illegally using drugs than Black people illegally using drugs, those incarcerated for drug offenses are disproportionately Black. According to the annual report of the Bureau of Justice Statistics, *Prisoners in 2017*, of the more than 190,000 people serving time in state prisons for drug offenses, 57,800 (30.4%) were Black, while only 61,600 (32.4%) were white, despite the fact that Blacks comprise just over 13% of the population (Bureau of Justice Statistics, 2019).

An additional element of conflict theory is that it argues that the nonlegal consequences associated with drug use are felt most acutely by the lower class because of their impoverished status. Most notably, conflict theorists would argue that the hoarding of resources in society has left large portions of the lower class concentrated into socially isolated and disadvantaged ghettos where drug abuse/dependence, drug-related violence, and drug dealing proliferate (Anderson, 1990, 1999; Wallace, 1999a; Wilson, 1996). On this point, the arguments of conflict theorists and anomie/strain theorists (discussed above) overlap, but conflict theorists typically place more emphasis on the culpability of the upper class in society for generating these adverse conditions. According to this form of conflict theory, structural conditions with their origins in politics and economics have generated extreme poverty and isolation among the lower class, resulting in feelings of alienation, frustration, and hopelessness for many. Rates of drug and alcohol use are exceedingly high in these communities as people seek escape and relief from these adverse life conditions. Research by Lillie-Blanton, Anthony, and Schuster (1993) supports these arguments by examining the importance of community structure for crack cocaine use. Noting how adversely crack has affected the Black community in particular, Lillie-Blanton et al. (1993) analyzed differences in crack-cocaine use for white, Black, and Hispanic people and found that the higher rates of crack use by Black and Hispanic people were the result of economic and environmental conditions—and once these factors were controlled for, the differences in crack use disappeared.

In addition to the escapism that frequent drug use may provide extremely disadvantaged individuals, the severe poverty and almost total lack of decent employment opportunity characterizing these communities has made drug dealing among the most lucrative and attractive, if locally despised, sources of employment. Despite the fact that the vast majority of all lower-class residents resist this temptation, drug selling is a form of employment in an otherwise extremely poor

and opportunity-deprived environment that can provide the symbols of success so valued in society. As Anderson (1999) has noted on these issues,

Where the wider economy is not receptive to these dislocated people, the underground economy is. That does not mean that anyone without a job is suddenly going to become a drug dealer; the process is not that simple. But the facts of race relations, unemployment, dislocation and destitution create alienation, and alienation allows for a certain receptivity to overtures made by people seeking youthful new recruits for the drug trade. (p. 120)

Conflict theorists would argue that as the opportunities provided to the lower class remain extremely limited, the wealth promised by drug sales becomes a source of competition and conflict among the lower class. Violence is the predominant form of mediation in these relationships, and consequently, great harm is done to residents of these communities, both those involved directly in the drug trade and those caught in the crossfire. Consistent with the propositions of conflict theory, the relative lack of power and political representation held by the residents of these extremely poor communities hampers their ability to address the problem. Consequently, the drug trade may become entrenched in the area, and the community disruption, drug dependence, and violence associated with it further serve to limit the opportunities of these residents.

CONCLUSION

Theories of substance use are designed to explain why drug use and abuse occurs and why it varies across a variety of different circumstances and social conditions. Although there are several dozen theories of drug use, we have focused on a number of theoretically distinct and broad perspectives and examined what research has to say about their validity.

The nature perspective, advocated most notably by Weil, contends that substance use and abuse is simply one way in which people express a universal and innate drive to alter their consciousness. Although empirical research on this perspective is limited, Weil points to the fact that substance use is historically ubiquitous in human societies and that from birth, children the world over engage in behaviors designed to alter their consciousness (e.g., rocking, spinning) and that people engage in a number of nondrug behaviors that also alter consciousness (e.g., meditation, exercise, risk taking).

Genetic/biological explanations of substance use were also addressed. Among the most compelling and empirically supported of these theories is sensitization theory. Sensitization theory suggests that chronic drug use causes long-lasting changes in dopamine-related motivation systems of susceptible individuals, called neural sensitization. Over time and with addiction, sensitization theory proposes that the motivation for taking the drug becomes increasingly associated with avoiding the discomfort associated with the aftereffects of the drug (e.g., depression, restlessness) and less and less associated with the “reward” of the high. Sensitization theory is distinct from many biological perspectives in the sense that a behavioral pattern, chronic substance use, places the individual at elevated risk for drug use via a biological process. Focusing disproportionately on alcoholism, genetic and biological perspectives emphasize that inherited predispositions toward substance use largely determine whether an individual will use and especially abuse psychoactive drugs. Although there is evidence that substance dependency runs in families, the genetic perspectives have been unable to

eliminate environmental influences, and evidence suggests that genetic perspectives will be lacking as long as they ignore social and environmental influences on substance use.

The disease model of addiction is often confused with the genetic/biological model, but there are important differences. Like the genetic model, most versions of the disease model argue that substance use and addiction are related to genetic predispositions—but the disease model makes several ideologically based assumptions (e.g., that abstinence is the only remedy for alcoholics; that alcoholism invariably grows worse) that are not supported by research.

Psychological perspectives of substance use include the self-derogation perspective, which contends that substance use is the result of lacking self-esteem. According to this perspective, individuals engage in substance use and abuse in the pursuit of positive affirmation from others, affirmation they have not received from more conventional sources. This perspective has been criticized in part because its emphasis on self-rejection as the cause of substance use is difficult to reconcile with the fact that illicit drug users tend to have *more* close friends than nondrug users, not fewer.

The problem-behavior perspective contends that substance use is just one pattern of behavior that is typical of a problem-behavior personality. The traits that characterize this personality (e.g., risk-taking, rebellion, pleasure seeking) are not necessarily negative or pathological, but they encourage behavior that conflicts with social and sometimes legal norms. Whether these traits are beneficial or problematic for the individual will likely depend on the intensity or degree to which they are expressed, the particular society or social group they are part of, and, perhaps most importantly, the social status of the individual.

Our examination of sociological theories includes differential association theory and social learning theory, theories that represent some of the most empirically supported explanations for substance use. Social learning theory emphasizes how interactions with others, especially intimate others, may contribute to substance use as people learn messages about substance use. More recent versions of the theory proposed by Akers also recognize the importance that reinforcement, both social and physiological, can have in drug use. Empirical support for the theory is substantial, particularly research that addresses the importance of parents and peers in predictions of substance use and abuse.

Social bonding theory contends that substance use results when an individual's bond to society is weak or broken (Hirschi, 1969). The bond reflects a person's integration into conventional society in terms of his or her relationships to family, spouses, children, conventional friends, employment, education, religion, community organizations, and other institutions in society. Social bonding theory has been widely supported when it has been used to explain crime and deviance more generally, but there has been relatively little support for the theory with respect to substance use, as the theory places too little emphasis on peer associations. Future work on control theory and substance use may be best directed at examining how control variables such as family attachment interact with peer-related variables to predict substance use at different points in the lifecourse, as is proposed by Thornberry's interactional theory (Thornberry, 1987) and the social development model (Catalano & Hawkins, 1996).

Age-graded theory is a developmental or lifecourse theory that integrates concepts from many theoretical perspectives, illustrating how these theoretical processes contribute to deviant behavior, including drug use, at several stages over the lifecourse. Developmental theories are among the best at explaining the stability and change evident in data on drug use, or why most people who use illegal drugs do so for a time (typically adolescence and young adulthood) and then

“age out” of this behavior, but others use drugs during adolescence and continue using late into adulthood.

Anomie or strain theories of substance use emphasize the importance of economic (Merton, 1938, 1957) and emotional stressors (Agnew, 1992) in the etiology of substance use and abuse. Despite a lack of empirical support for classical strain explanations of substance use, recent findings indicate that the relationship between economic factors and substance use may not be the same across racial/ethnic groups, in part because there are important interactions between race/ethnicity, income/poverty, and substance use (Barr et al., 1993; Jones-Webb et al., 1995, 1997). Thus, economic strain explanations may be ineffective for explaining substance use and abuse among white people and the middle class, but these explanations appear to be more effective at explaining patterns of substance use among minorities and particularly among the most disadvantaged in society.

Finally, conflict perspectives of substance use emphasize the importance of power differentials in society for substance use and especially *outcomes* associated with substance use and abuse. Conflict perspectives focus on the differential application of the law, noting that illegal drugs are used broadly across all social and economic groups, but the consequences of these drug policies fall much more heavily on minorities and the lower class.

REVIEW QUESTIONS

1. What does current research reveal about the strength of the relationship between genetics and alcoholism?
2. How does the disease model of addiction differ from the moral model of addiction?
3. According to the self-derogation perspective, what causes drug use and abuse?
4. Discuss the similarities and differences between social learning theory and subcultural learning theory.
5. Why is there less empirical support for the propositions of social control theory than for social learning theory?
6. How did Agnew's general strain theory expand and improve upon earlier versions of strain theory?
7. Discuss this statement: Conflict theory is most concerned with outcomes of drug use, not drug use per se.

INTERNET EXERCISE

Using a search engine available at your college/university's library (JSTOR; Proquest), type in “social control theory drugs” and “social learning theory drugs.” Compare the number

of articles identified through each search, and access two articles from each category. Review the articles and compare and contrast their findings.

WEB RESOURCES

National Institute of Drug Abuse: “Drugs, Brains, and Behavior—The Science of Addiction” <http://www.nida.nih.gov/scienceofaddiction/>

Stanton Peele Critiques the Disease Model <http://www.peele.net/lib/faithhealers.html>
Alcoholics Anonymous <http://www.aa.org/?Media=PlayFlash>