Little Jimmy Caine is an emotionless, guiltless, walking id, all 5 feet 5 inches and 130 pounds of him. By the time he was 26, Jimmy had accumulated one of the worst criminal records the police in Toledo, Ohio, had ever seen: burglary, robbery, aggravated assault, rape—name it, Jimmy had done it. This little tearaway had been arrested for the brutal rape of a 45-year-old barmaid. Jimmy entered an unlocked bar after closing time to find the lone barmaid attending to some cleaning chores. Putting a knife to the terrified woman’s throat, he forced her to strip and proceeded to rape her. Because she was not sexually responsive, Jimmy became angry and placed her head over the kitchen sink and tried to decapitate her. Thankfully, his knife was as dull as his conscience, which only increased his anger, so he picked up a bottle of whiskey and smashed it over her head. While the woman lay moaning at his feet, he poured more whiskey over her, screaming, “I’m going to burn you up, bitch!” The noisy approach of the bar’s owner sent Jimmy scurrying away like a rat who smelled the cat. He was arrested 45 minutes later casually eating a hamburger at McDonald’s.

Jimmy didn’t fit the demographic profile of individuals who engage in this type of crime. Although he had a slightly below-average IQ, he came from a fairly normal intact middle-class home. However, Jimmy had been in trouble since his earliest days and had been examined by a variety of psychiatrists and psychologists. Psychiatrists diagnosed him with something called conduct disorder as an 8-year-old and as having antisocial personality disorder at 18. Jimmy’s case reminds us that we have to go beyond factors such as age, race, gender, and socioeconomic status to explain why individuals commit criminal acts. In this chapter we look at many of the traits psychologists and psychiatrists have examined to explain individual criminality. These explanations do not compete with sociological explanations; rather, they complement them.
The Two “Great Pillars of Psychology”

This chapter is called *psychosocial* rather than *psychological* because, along with many others (e.g., Cullen & Agnew, 2011), we believe it is artificial to strictly separate social and psychological approaches. Many sociological theories—self-control, social learning, subcultural, and general strain theories, for instance—focus heavily on psychological traits. Psychosocial theories of criminal behavior are more interested in individual differences in the propensity to commit crimes than in environmental conditions that may push a person into committing a crime, although the difference is only a matter of degree. Two of the most respected modern criminologists, Francis Cullen and Robert Agnew (2011), have written that “it has become increasingly clear that biological factors, individual traits, and social factors all have an important role to play in the explanation of crime” (p. 78). We have already looked at social factors; biological factors are examined in the next chapter, and in this chapter we look at individual traits other than those examined in previous chapters.

Early theories in the psychological tradition strongly emphasized two major traits contributing to criminal behavior—intelligence and temperament—the so-called “two great pillars of differential psychology” (Chamorro-Premuzic & Furnham, 2005, p. 352). Early theorists assumed that low intelligence hampers the ability to calculate the pleasures and pains involved in undertaking criminal activity and that certain types of temperament make individuals impulsive and difficult to socialize.

One of the earliest works emphasizing low intelligence was Richard Dugdale’s (1877/1895) *The Jukes*: A Study in Crime, Pauperism, Disease, and Heredity, which studied the lineage of a rural upstate New York family known for its criminal activity to which he gave the fictitious name of “Jukes.” He traced the family lineage to a colonial-era character named “Max,” whose descendants remained in relative isolation and largely propagated themselves through intermarriage. Dugdale eventually traced 1,200 of Max’s descendants, among whom he found numerous cases of crime, pauperism, disease, feeblemindedness, sexual promiscuity, and prostitution. Dugdale’s work was widely interpreted as evidence of the hereditary nature of criminality, although Dugdale himself believed that moral education could override biological propensities.

Another early study was published by Henry Goddard (1912/1931) in a book titled *The Kallikak Family: A Study in the Heredity of Feeble-Mindedness.* This study traced two family lineages of a Revolutionary War soldier named Martin Kallikak Sr., who dallied with a “feebleminded tavern girl” with whom he fathered a son. From this lineage, there issued a variety of individuals of unsavory character. Martin produced another line of descendants with a woman from a “good Quaker family,” whom he married and from whose lineage emerged a number of prominent people and very few of unsavory character. From these two families with a common male ancestor and two female ancestors, one “defective” and the other “respectable,” Goddard concluded that “degeneracy” was the result of “bad blood” (p. 69).

Learning Objectives

- Understand the nature of intelligence and how it is related to life outcomes, particularly to criminal behavior
- Understand temperament and its role in forming personality
- Describe the major psychological traits associated with criminal behavior
- Understand the role of the autonomic nervous system and classical conditioning in building a conscience
- Explain the differences among antisocial personality disorder, psychopathy, and sociopathy
- Know the policy recommendations of psychosocial theories
Intelligence

Intelligence is perhaps the “master trait” that separates humans from other species and is measured by IQ (intelligence quotient) tests of various kinds. IQ tests are used to test for mental abilities and disabilities, educational placement, and job assignments. There are many different tests available, but they are all “normed” to arrive at an average score of 100. Just over two-thirds of people in the general population have IQ scores between 85 and 115. Intelligence tests developed rapidly during World War I as a way to evaluate and assign army recruits to various specialties and tasks. This led to the eventual development of the Armed Services Vocational Aptitude Battery (ASVAB), which is not strictly an IQ test but is highly correlated with IQ tests. A simple example of an item on a typical IQ test asking you to recognize a numerical pattern is “Complete the following number sequence: 3, 7, 16, 35, ___.” (You have to double the first number and add 1, double the second number and add 2, and so on to arrive at the answer, which is 74.)

David Wechsler (who devised many of the IQ tests in use today) defined intelligence as “the aggregate or global capacity of the individual to act purposefully, think rationally, and to deal effectively with his [or her] environment” (in Matarazzo, 1976, p. 79). Although some claim that IQ tests are culturally biased, according to the National Academy of Sciences (Seligman, 1992) and the American Psychological Association’s Task Force on Intelligence (Neisser et al., 1995), no study designed to detect such bias has ever done so.

Most studies of intelligence (as measured by IQ) today look at the brain and genes thought to be associated with the speed and accuracy of information processing, but this complicated line of research need not concern us here. There are environmental effects on intelligence as well. The most important evidence of environmental effects on IQ involves the so-called Flynn effect. Flynn (2007) has shown that the average IQ increased in populations in all developed countries studied by approximately 3.1 points per decade from 1932 to 2000. These gains were seen mostly in lower socioeconomic groups as the environment became more equal (e.g., better schooling for all, medical treatment). Things like malnutrition and mineral deficiencies that caused rickets, anemia, and many other diseases prevalent during the 1930s are virtually unknown today in developed societies (Lynn, 2009). Eppig, Fincher, and Thornhill (2010, 2011) also note the reduction of parasite infections in developed countries because such infections during early childhood consume the energy otherwise used in building the brain. IQ gains have ceased in developed countries because they have wrung all the IQ-enhancing benefits they can from the environment, although the Flynn effect is still evident in developing countries.

Flynn (2007) claims that the direct genetic effect on IQ is only about 36% (as opposed to much higher estimates claimed by others), with 64% resulting from the indirect effects of genes interacting with the environment. This gene–environment interplay results in what Dickens and Flynn (2001) call the “multiplier effect.” That is, genes are usually matched with environments (“high IQ genes” with advantaged environments and “low IQ genes” with disadvantaged environments) that “multiply” or magnify what may have been a small genetic advantage or disadvantage at birth into a large advantage or disadvantage over time. During former times when societies were more unequal, a person born into lower-class conditions was not able to realize his or her full genetic potential, so environmental factors simply reinforced the advantage or disadvantage of genetic inheritance in a kind of “the rich get richer and the poor get poorer” fashion. Dickens and Flynn go on to say that across the time in which the Flynn effect has been working, the better environments to which successive generations have been exposed has allowed “the potency of environmental factors [to stand] out in bold relief” (p. 351).
The IQ–Crime Connection

A number of reviews find the IQ–crime relationship to be robust (Ellis & Walsh, 2003; Lynam, Moffitt, & Stouthamer-Loeber, 1993). It is stronger than often indicated because most IQ studies lump together boys who commit only minor delinquent acts during their teenage years with boys who will continue to seriously and frequently offend into adulthood. Casual and less serious offenders differ from nonoffenders by only about 1 point, while serious persistent offenders differ from nonoffenders by about 17 points (Gatzke-Kopp, Raine, Loeber, Stouthamer-Loeber, & Steinhauer, 2002; Moffitt, 1993). Simple arithmetic tells us that pooling these two groups hides the magnitude of IQ differences between nonoffenders and serious offenders if the latter have lower IQs than the former.

Wechsler’s (1958) statement that “the most outstanding feature of the sociopath’s test profile is the systematic high score on the performance as opposed to the verbal part of the scale” (p. 176) sparked another way of examining the relationship between IQ and antisocial behavior. Most IQ studies look at full-scale IQ (FSIQ), which is obtained by averaging the scores on verbal IQ (VIQ) and performance IQ (PIQ) subscales. While most people’s VIQ and PIQ scores closely match, criminal offender populations are almost always found to have significantly lower than average VIQ scores, but not lower PIQ scores, than nonoffenders.

This PIQ > VIQ discrepancy is called intellectual imbalance. As Miller (1987) remarks, “This PIQ > VIQ relationship [is] found across studies, despite variations in age, sex, race, setting, and form of the Wechsler [IQ] scale administered, as well as in differences in criteria for delinquency” (p. 120). A literature review found that overall VIQ > PIQ boys are underrepresented in delinquent populations by a factor of about 2.6, and PIQ > VIQ boys are overrepresented by a factor of about 2.2 (Walsh, 2003). A VIQ > PIQ profile appears to be a major predictor of prosocial behavior, especially among adults. Barnett, Zimmer, and McCormack (1989) found that only 0.9% of prison inmates had such a profile compared with 18% of the general male population, a large 20-fold difference. The research on intellectual imbalance provides another example of how the role of IQ in understanding criminal behavior may be underestimated if we rely solely on full-scale IQ rather than looking deeper into the effects of verbal IQ only or of PIQ > VIQ imbalance.

The most usual explanation for the IQ–delinquency link is that it works via poor school performance, which leads to dropping out of school and then associating with delinquent peers (Ward & Tittle, 1994). The idea that IQ influences offending via its influences on school performance was supported in 89% of 158 studies based on official statistics and 77.7% of those based on self-reports (Ellis & Walsh, 2000). On the other hand, all 46 studies exploring the link between grade point average (GPA) and antisocial behavior established such a link. Actual performance measures of academic achievement such as GPA are probably better predictors of antisocial behavior than IQ. Academic achievement is a measure of IQ plus many other personal and situational characteristics such as conscientious study habits, ambition, and supportive parents: talent + effort.

IQ is related to a wide range of life outcomes that are themselves related to criminal and antisocial behavior such as poverty, lack of education, and unemployment. The data presented in Table 9.1 come from 12,686 white males and females in the National Longitudinal Study of Youth (NLSY). This study began in 1979 when the subjects were 14 to 17 years old, and data were collected in 1989 when they were 24 to 27 years old. The bottom 20% on IQ had scores of 87 and below; the top 20% had scores of 113 and above. Note the large ratios between the two groups on all outcomes. For instance, for every 1 person in the top 20% on IQ ever interviewed in jail or prison, there were 31 persons in the bottom 20% interviewed in jail or prison.

Temperament and Personality

It is obvious that low intelligence alone cannot explain criminal behavior. Most individuals with a below-average IQ do not commit crimes, and many people with an above-average IQ do. Many early psychological criminologists saw criminal behavior as a result of the interaction of low intelligence and a particular kind of temperament. As we have seen, IQ and temperament are given prominent roles as factors influencing how a person copes with...
strain, and thus how insulated he or she is from criminal behavior, in Robert Agnew’s general strain theory discussed in Chapter 6.

**Temperament** is defined as “constitutionally based individual differences in reactivity and self-regulation, influenced over time by genes, maturation, and experience” (Rothbart, 2012, p. 9). It is thus a person’s habitual mode of emotionally responding to stimuli and is largely a function of genes governing physiological arousal patterns, although arousal systems are fine-tuned by experience. Temperamental components include mood (happy/sad), activity level (high/low), sociability (introverted/extraverted), reactivity (calm/excitable), and affect (warm/cold). These components make it easy or difficult for others to like us and to get along with us. Temperamental differences make some children easy to socialize and others difficult to socialize. Children who throw temper tantrums and reject warm overtures from others may adversely affect the quality of parent–infant interactions regardless of their parents’ temperaments and thus lead to poor parent–child attachment and all the negative consequences that result. Numerous studies have shown that parents, teachers, and peers respond to children with bad temperaments negatively and that such children find acceptance only in association with others with similar dispositions (reviewed in Caspi, 2000).

**Sigmund Freud and Personality**

**Personality** is an individual’s set of relatively enduring and functionally integrated psychological characteristics that result from his or her temperament interacting with cultural and developmental experiences. There are many components of personality that psychologists call traits, some of which are associated with the probability of committing antisocial acts and some of which protect against doing so. People differ only on the strength of these traits; they are not characteristics that some people possess and others do not.

Any discussion of personality must acknowledge the role of the father of psychoanalysis, Sigmund Freud. Freud offered a broad sweeping theory of personality, and although he wrote little about crime, his ideas stimulated many criminologists.

Early psychological theorists never pondered what mental processes might intervene between their assumed causes and criminal behavior. If all people are hedonistic, why do only some commit crimes? If criminals are feebleminded, why don’t all low-IQ people commit crimes? The psychological answer to such questions is that individuals possess different personalities, and these different personalities lead them to respond differently to identical situations.

According to Freud, the basic human personality consists of three interacting components, each having separate purposes: the id, ego, and superego. The id is the biological raw material of our temperament and personality; it represents our drives and instincts for acquiring life-sustaining necessities and life’s pleasures. Like a spoiled child, the id demands instant gratification of its desires.

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**TABLE 9.1 Impact of High and Low IQs on Selected Life Outcomes**

<table>
<thead>
<tr>
<th>Social Behavior</th>
<th>IQ Level</th>
<th></th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dropped out of high school</td>
<td>Bottom 20%</td>
<td>Top 20%</td>
<td>33.0:1</td>
</tr>
<tr>
<td></td>
<td>66%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Living below poverty level</td>
<td>Bottom 20%</td>
<td>Top 20%</td>
<td>9.6:1</td>
</tr>
<tr>
<td></td>
<td>48%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Unemployed entire previous year</td>
<td>Bottom 20%</td>
<td>Top 20%</td>
<td>16.0:1</td>
</tr>
<tr>
<td></td>
<td>64%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Ever interviewed in jail or prison</td>
<td>Bottom 20%</td>
<td>Top 20%</td>
<td>31.0:1</td>
</tr>
<tr>
<td></td>
<td>62%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Chronic welfare recipient</td>
<td>Bottom 20%</td>
<td>Top 20%</td>
<td>28.5:1</td>
</tr>
<tr>
<td></td>
<td>57%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Had child out of wedlock</td>
<td>Bottom 20%</td>
<td>Top 20%</td>
<td>17.3:1</td>
</tr>
<tr>
<td></td>
<td>52%</td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

*Source:* Herrnstein and Murray, 1994

a. Males only.
b. Females only.

**Temperament:** An individual characteristic identifiable as early as infancy that constitutes a habitual mode of emotionally responding to stimuli.

**Personality:** The relatively enduring, distinctive, integrated, and functional set of psychological characteristics that results from people’s temperaments interacting with their cultural and developmental experiences.
and does not care if the means used to satisfy them are appropriate or injurious to self or to others. The id obeys what Freud called the pleasure principle, but because it lacks the ability to engage in the hedonistic calculus, it is often dangerous to itself as well as to others. The selfish, immoral, uncaring, antisocial id is the only aspect of the personality we are born with; so in a Freudian sense we might say that we are all Lombroso’s “born criminals.”

The ego and the superego are formed from the raw material of the id during the process of socialization. With the correct moral training, energy from the id is used to form the ego or the aspect of the personality we think of as “me” or “I.” The ego obeys the reality principle because it realizes that the desires and demands of the id are necessary, but they must be satisfied in socially appropriate ways if one is to avoid negative consequences. It is the ego that performs the hedonistic calculus; it does not deny the pleasure principle, it simply adjusts it to the demands of reality. Freud analogized the interaction of the ego and the id in terms of a rider and a horse. The horse (the id) supplies the raw locomotive power, while the rider (the ego) supplies the goals and the direction (Freud, 1923/1976).

The superego strives for the ideal and is thus just as irrational as the id. It represents all the moral and social rules (the “do’s and do not’s”) internalized by the person during the process of socialization and may be summed up as the conscience. Because many urges have been defined as wrong or sinful, the superego tries to suppress all the normal urges arising from the id. It is the ego’s function to sort out the conflict between the antisocial demands of the id and the overly conformist demands of the censorious superego. The normal personality is one in which the ego is successful in working out compromises between its irrational partners. An abnormal personality results when either the id or the superego overwhelms the ego, resulting in psychic energy being drained from the weaker components to strengthen the stronger component. If the id is “in command” of the personality, the result is a conscienceless and impulsive individual who seeks to satisfy personal needs regardless of the expense to others.

### Personality Traits Positively and Negatively Associated With Criminal Behavior

**Impulsiveness** is perhaps the trait most often linked to criminal behavior. Impulsiveness is the tendency to act without giving much thought to the consequences. Although impulsiveness and low self-control are somewhat different constructs, they are similar enough to be treated as one construct. Both involve disinhibited behavior in which the actor is unable or unwilling to consider the long-term consequences of his or her behavior (Chapple & Johnson, 2007).

A review of 80 studies examining the relationship between impulsivity and criminal behavior found that 78 were positive and the remaining 2 were nonsignificant (Ellis & Walsh, 2000). Although impulsiveness is a potent risk factor for criminality in its own right, it becomes more potent if negative emotionality is added to the mix.

**Negative emotionality** refers to the tendency to experience many situations as aversive and to react to them with irritation and anger more readily than with positive affective states (McGue, Bacon, & Lykken, 1993). The trait is central to Agnew’s general strain theory and is strongly related to self-reported and officially recorded criminality “across countries, genders, races, and methods” (Caspi et al., 1994, p. 163). People who are low on constraint (they are impulsive)
tend to be high on negative emotionality. Low levels of a brain chemical called serotonin underlie high levels of both negative emotionality and impulsivity. Caspi and his colleagues (1994) claim that low serotonin may represent a constitutional predisposition for these traits and thus a general vulnerability to criminality. Taking advantage of the relationship between these two traits, Agnew has developed a theory featuring them (discussed in Chapter 11).

*Sensation seeking* refers to the active desire for novel, varied, and risky sensations (Zuckerman, 1990). Sensation seekers tend to be outgoing and relatively impulsive and fearless. These other traits lead socialized sensation seekers to want to work as firefighters, police officers, or any other job that provides physical activity, variety, and excitement. Poorly socialized sensation seekers, on the other hand, may well find their kicks in carjacking and burglary. A review of the literature found that 98.4% of the studies reported a statistically significant relationship between sensation seeking and antisocial behavior (Ellis & Walsh, 2000).

*Empathy* is the emotional and cognitive ability to understand the feelings and distress of others as if they were your own. The emotional component allows you to “feel” the other person’s pain, and the cognitive component allows you to understand that person's pain and why he or she is feeling it. Some people carry the pains of the world on their shoulders, while others couldn’t care less about anyone. Most criminals fall into the “couldn’t care less” category for obvious reasons—you are less likely to victimize someone if you feel and understand what the consequences may be for that person (Covell & Scalora, 2002). High empathy is thus a strong protective factor against criminal offending.

*Altruism* can be thought of as the action component of empathy; if you feel empathy for someone, you will probably feel motivated to take some sort of action to alleviate his or her distress if you are able. As with empathy, altruism lies on a continuum, with criminals on the wrong end of it (again for obvious reasons). Lack of empathy and altruism is considered one of the most salient characteristics of psychopaths, the worst of the worst among criminals (Fishbein, 2001). A review of 24 studies of these traits found that 23 of them were statistically significant in the predicted direction; that is, the lower the level of empathy/altruism, the more the antisocial behavior (Ellis & Walsh, 2000).

*Conscientiousness* is a primary trait composed of several secondary traits such as well organized, disciplined, scrupulous, responsible, and reliable at one pole and disorganized, careless, unreliable, irresponsible, and unscrupulous at the other. It is easy to see how conscientiousness could be directly related to crime through the inability of people who lack it to follow a legitimate path to the American Dream: “It is not merely a matter of talented individuals confronted with inferior schools and discriminatory hiring practices. Rather, a good deal of research indicates that many delinquents and criminals are untalented individuals who cannot compete effectively in complex industrial societies” (Vold, Bernard, & Snipes, 1998, p. 177). In other words, persons with certain kinds of temperament do not develop the personal qualities needed to apply themselves to the long and arduous task of achieving financial success legitimately, and as a consequence they may attempt to obtain it through crime.

*Agreeableness* is the tendency to be friendly, considerate, courteous, helpful, and cooperative with others. Agreeable persons tend to trust others, to compromise with them, and to empathize with and aid them. This list of subtraits suggests a high degree of concern for prosocial conformity and social desirability. Disagreeable persons simply display the opposite characteristics—suspicion of others, unfriendly, uncooperative, unhelpful, and lacking in empathy—all of which suggest a lack of concern for prosocial conformity and social desirability. While agreeable people tend to also be conscientious, this is not always the case. A person can be very conscientious at work but thoroughly disagreeable as a person (think of the greedy, egotistical, and manipulative corporate criminal), and one can be very agreeable as a person but thoroughly lackadaisical at work (think of the ritualist of Merton’s anomie theory). Agreeableness seems to be a better protective factor than conscientiousness. In Miller and Lynam’s (2001) meta-analysis of 29 studies that compared prisoner samples with nonprisoner
samples, they found moderate to strong relationships between agreeableness and antisocial behavior and found moderate relationships between conscientiousness and antisocial behavior. Miller and Lynam describe the personality of the “typical” criminal in terms of agreeableness and conscientiousness:

> Individuals who commit crimes tend to be hostile, self-centered, spiteful, jealous, and indifferent to others (i.e., low in Agreeableness). They tend to lack ambition, motivation, and perseverance, have difficulty controlling their impulses, and hold nontraditional and unconventional values and beliefs (i.e., are low in Conscientiousness). (p. 780)

## Conscience and Arousal

One of the basic ideas of psychology is that different levels of physiological arousal correlate with different personality and behavioral patterns because arousal levels determine what we pay attention to, how strongly we pay attention, and the ease or difficulty of acquiring a conscience. When we ask most individuals why they don’t victimize others, they tend to reply that their consciences won’t let them, yet few people are aware of how their consciences were formed. A conscience is a complex mix of emotional and cognitive mechanisms acquired by internalizing the moral rules of our social group during socialization. People with strong consciences feel guilt, shame, stress, and anxiety when they violate, or even contemplate violating, these rules. A functioning conscience thus signals a successful prosocial socialization, which mostly revolves around individuals’ relative sensitivity to social reward and punishment as individuals contemplate the approval or disapproval of their behavior by others. We must learn cognitively what is expected of us, but how well such lessons are learned is more a function of how they engage our emotions than of how they engage rational reflection (Gao, Raine, Venerables, Dawson, & Mednick, 2010; Muñoz & Anastassiou-Hadjicharalambous, 2011).

Differences in the emotional component of conscience reflect variation in the autonomic nervous system (ANS) arousal patterns (Kochanska & Aksan, 2004). The ANS is part of the peripheral nervous system and carries out the basic housekeeping functions of the body by funneling messages from the environment to the various internal organs to keep the organism in a state of biological balance (e.g., adjusting pupil size, shivering or sweating in response to temperature). The ANS has two complementary branches: the sympathetic and parasympathetic systems. When an organism perceives a threat, the brain sends signals to the sympathetic branch to mobilize the body for vigorous action (the “fight or flight” reaction). Pupils dilate for better vision, the heart and lungs accelerate their activity, and digestion stops, among other things, all of which are aided by pumping out epinephrine (adrenaline). The parasympathetic system restores the body to homeostasis after the organism perceives the threat to be over. These processes regulating bodily functions occur automatically and never reach our conscious awareness. However, certain other messages that influence ANS functioning and do reach awareness are important for the acquisition of conscience via a process called classical conditioning. Figure 9.1 illustrates the various functions of the ANS.

Classical conditioning is a form of learning different from operant conditioning discussed in Chapter 7. Operant conditioning is active (it depends on the actor’s behavior) and cognitive in that it forms a conscious association between a person’s behavior and its consequences. Classical conditioning, on the other hand, is mostly passive (it depends more on the level of ANS arousal than on anything the actor does) and visceral (felt in the internal organs); it simply forms a subconscious association between two paired stimuli. You may have heard about Russian psychologist Ivan Pavlov’s classical conditioning experiment in Psych 101 in which Pavlov conditioned dogs to salivate at the sound of a bell. Salivation is a natural ANS response to the expectation of food. A bell has no intrinsic properties that would make dogs salivate at its sound, but because Pavlov consistently paired the sound of the bell with food, the dogs learned (were conditioned) to associate the sound of the bell with food, and the sound itself became enough to make them salivate even when not paired with food.

We have all been conditioned in various ways to respond at the gut level to neutral stimuli via their association with unconditional stimuli. How did you feel when the school bell rang for recess?
or you heard the bells of the ice cream truck as a child? In both cases we expect that you responded with some pleasure, not because you love the sound of bells themselves but because they signaled something you did love.

It is by way of these associations that we develop the “gut-level” emotions of shame, guilt, and embarrassment that make up the emotional (“feeling”) scaffolding of our consciences. Children must learn which behaviors are acceptable and which are not (the “knowledge” part of our conscience), most of which comes via parental teaching. Once children know the behavior expected of them, the degree to which emotions influence future behavior depends on the severity of the reprimand interacting with the responsiveness of their ANSs (Kochanska & Aksan, 2004; Pinel, 2000). Assuming an adequately responsive ANS, refraining from such behavior in the future is not simply a rational calculation of cost and benefits but rather a function of the emotional component of conscience strongly discouraging it by generating unpleasant feelings.

Individuals with a readily aroused ANS are easily socialized; they learn their moral lessons well because ANS arousal (“butterflies in the stomach”) is subjectively experienced as fear and anxiety, but people with an ANS resistant to arousal will not experience anxiety and fear. This sluggish
ANS arousal is a good predictor of criminal behavior: “Poor fear conditioning is a predisposing factor to crime because individuals who lack fear are less likely to avoid situations, contexts and events that are associated with future punishment—resulting in a lack of conscience” (Syngelaki, Fairchild, Moore, Savage, & van Goozen, 2013, p. 84). A hyperresponsive ANS generates high levels of fear and anxiety and is a protective factor against antisocial behavior. Studies have shown that males with hyperarousable (quick to react) ANSs living in high-crime environments are less involved with antisocial behavior than males with hypoarousable (slow to arouse) ANSs living in low-crime environments (Brennan et al., 1997; Lacourse et al., 2006). A longitudinal study of a birth cohort found that measures of poor ANS conditioning at age 3 successfully predicted criminal offending (official records) at age 23 independent of controls for a variety of social adversities that are risk factors for criminality (Gao et al., 2010).

Individuals with relatively unresponsive ANSs are difficult to socialize because they experience little fear, shame, or guilt when they offend, even when discovered and punished. Measures of ANS arousal such as resting heart rate during childhood have enabled researchers to accurately predict which of their subjects would and would not have a criminal record at age 24 with 75% accuracy (Raine, 1997). Across a wide variety of subjects and settings, it is consistently found that antisocial individuals have relatively unresponsive ANSs. This relationship exists because a hypoarousable ANS does not allow for adequate development of the social emotions. Having knowledge of what is right or wrong without that knowledge being paired with emotional arousal is like knowing the words to a song but not the music—not much good for the social choir.

The rational cognitive components of conscience are presumably stressed strongly during the socialization process of children from advantaged environments. If such children become delinquent and criminal, it follows that because they lack the environmental factors that push children from less advantaged environments into crime, they will be less emotionally conditionable than their peers. Variation in physiological measures will therefore be more important in accounting for antisocial behavior among higher socioeconomic status (SES) individuals than in lower SES individuals, whose physiological risks are masked by psychosocial risk factors. This is consistently found and has been called the social push hypothesis. Scarpa and Raine (2003) define the social push hypothesis: “If an individual lacks psychosocial risk factors that predispose toward antisocial behavior yet still exhibits antisocial behavior, then the causes of this behavior are more likely to be biologically than socially based” (p. 213). However, children from lower SES environments who are difficult to condition because of a hypoactive ANS are at greatest risk for antisocial behavior because they are also more likely, on average, to lack the cognitive skills necessary for acquiring a conscience and are less likely to be consistently taught moral rules.

### Cognitive Arousal

Another form of arousal of interest to psychologists is neurological arousal, the regulator of which is the brain’s reticular activating system (RAS). The RAS is a little finger-size bundle of brain cells situated at the top of the spinal cord and can be thought of as the brain’s filter system determining what incoming stimuli the higher brain centers will pay attention to (see Figure 9.2). Some individuals possess an RAS that is highly sensitive to incoming stimuli (augmenters), and others possess one that is unusually insensitive (reducers). Thus in identical environmental situations, some people are underaroused and other people are overaroused. Both overaroused and underaroused are psychologically uncomfortable. If you’ve ever taken your grandpa to a rap concert, or if he has ever taken you to a chamber music recital, you’ll know what we mean.

There is no conscious attempt to augment or reduce incoming stimuli; as with the ANS, augmentation or reduction in the RAS is solely a function of physiology. Augmenters tend to be people with hyperactive ANSs, and reducers tend to be people with hypoactive ANSs. Underarousal of the ANS is associated with fearlessness, and underarousal of the RAS is associated with sensation seeking. We can readily appreciate that sensation seeking and fearlessness are correlated since sensation seeking is aided by fearlessness (Raine, 1997).

Reducers are easily bored with levels of stimulation that are “just right” for most of us and continually seek to boost stimuli to more comfortable levels. They also require a high level of punishing
stimuli before learning to avoid the behavior that provokes punishment and are thus unusually prone to criminal behavior. Studies have shown that, relative to the general population, criminals, especially those with the most serious records, are chronically underaroused, as determined by electroencephalograph (EEG) brainwave patterns, resting heart rate, and skin conductance (Ellis, 2003). EEG brainwaves reflect the electrical “chatter” of billions of brain cells. Clinicians recognize four bands of EEG brainwaves: alpha, beta, theta, and delta. Beta waves followed by alpha waves are the most rapid, and they signal when a person is alert and focused. Theta waves are emitted when a person is in a drowsy mental state, and delta waves are the slowest of them all. Most studies (about 75%) show that EEG readouts of criminals reveal that their brains are less often in the alert and focused range than the brains of people in general (Ellis & Walsh, 2000).

Skin conductivity is measured by a meter attached to various parts of the body that records electrical responses to sweat. Sweat contains high levels of salt, and salt water is an excellent conductor of electricity. In temperature-controlled environments, increased sweating (even though the sweating might not be enough for the person to notice that he or she is sweating) occurs in response to emotional arousal. This is the basis of polygraph testing. The polygrapher asks suspects questions that evoke emotions such as guilt, shame, and embarrassment that are detected (or rather skin conductivity is detected) by the monitor. Because chronic criminals tend to have low levels of these emotions as well as lower levels of ANS arousal, they are least likely to show sweat responses to threatening questions. Thus, low skin conductivity and criminal behavior are expected to be related. In a review of this literature, all 19 studies found this relationship to be significant (Ellis & Walsh, 2000).

**Glen Walters’s Lifestyle Theory**

Perhaps the best-known modern psychosocial criminological theory is Glen Walters’s (1990) **lifestyle theory**. Walters believes that criminal behavior is part of a general pattern of life, or lifestyle, characterized by irresponsibility, impulsiveness, self-indulgence, negative interpersonal relationships, and the chronic willingness to violate society’s rules. Lifestyle theory has three key concepts: conditions, choice, and cognition. A criminal lifestyle is the result of choices criminals make “within the limits established by our early and current biologic/environmental conditions” (Walters & White, 1989, p. 3). Thus, various biological and environmental conditions lay the foundation of future choices. Walters stresses impulsiveness and low IQ as the most important choice-biasing conditions at the individual level and stresses attachment to significant others as the most important environmental condition.
Walters’s theory thus adds to rational choice theory by pointing to two important components of choice structuring. The third concept, cognition, refers to cognitive styles people develop as a consequence of their biological/environmental conditions and the pattern of choices they have made in response to them. According to this theory, criminals display eight major cognitive features or thinking errors that make them what they are (Walters, 1990). Examples of criminals’ thinking errors are cutoff (the ability to discount the suffering of their victims), entitlement (the world owes them a living), power orientation (viewing the world in terms of weakness and strength), cognitive indolence (orientation to the present; concrete in thinking), and discontinuity (the inability to integrate thinking patterns). Little can be done to change criminal behavior until criminals change their pattern of thinking.

These thinking errors lead to four interrelated behavioral patterns or styles that almost guarantee criminality: rule breaking, interpersonal intrusiveness (intruding into the lives of others when not wanted), self-indulgence, and irresponsibility. These behavioral patterns are the result of faulty thinking patterns, which arise from the consequences (reward and punishment) of choices in early life, which are themselves influenced by biological and early environmental conditions. Figure 9.3 lays out lifestyle theory in diagrammatic form.

The Antisocial Personalities

Psychopathy

Depending on who you ask, antisocial personality disorder, psychopathy, and sociopathy are terms describing the same constellation of traits or separate concepts with fuzzy boundaries.

We use the generic term **psychopathy**, a syndrome we can define as being characterized psychologically by egocentricity, deceitfulness, manipulativeness, selfishness, and a lack of empathy, guilt, or remorse or as being characterized physiologically by the inability to tie the brain areas associated with the social emotions and rational cognition together.

Some researchers believe there is a subset of psychopaths (so-called primary psychopaths) whose behavior is biological in origin and a more numerous group (secondary psychopaths or, as others call them, sociopaths) whose behavior is mostly the result of incompetent parenting (Lykken, 1995; Walsh & Wu, 2008). Others view psychopathy not as something one is or isn’t but rather simply a name we apply to the most serious and chronic criminal offenders. Psychiatrists apply the label **antisocial personality disorder** (APD) to such criminals. APD is defined by the American Psychiatric Association (APA, 1994) as “a pervasive pattern of disregard for, and violation of, the rights of others that begins in childhood or early adolescence and continues into adulthood” (p. 645).

The criteria for diagnosing APD are both clinical and legal but rest primarily on behavior. Criminologists generally want to define individuals according to criteria independent of their behavior and then determine in what ways those so defined differ from individuals not so defined. The most widely used measure of psychopathy is the **Psychopathy Checklist–Revised** (PCL-R), which was devised by Robert Hare, the leading expert in psychopathy in the world today (Bartol, 2002). Using case histories and semistructured interviews that may last up to 2 hours, doctoral-level clinicians rate subjects on each of the 20 traits or behaviors listed nearby on a 3-point scale ranging from 0 to 2; a score of 30 or higher out of a possible 40 is the required cut-point in a psychopathic diagnosis. To put this number in perspective, offenders in general have an average PCL-R score of 22 and nonoffenders have an average score of 5 (Hare, 1996).

Statistical analyses of the PCL-R reveal that psychopathy is composed of two major factors derived from the statistical analysis of all the traits and behaviors in the PCL-R to find groups of traits and behaviors that cluster together. Two major factors arise from this process and are shown in Table 9.2. Factor 1 describes an arrangement of personality traits that indicate an overall insensitivity to the feelings of others. Factor 2 is a collection of behavioral traits reflecting an impulsive and deviant lifestyle. These two factors can exist independently but tend to be fairly strongly related (Patrick, 2006). Biological anomalies associated with psychopathy typically correlate highly with scores on biological anomalies associated with psychopathy.

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**Photo 9.4**
Serial killer Ted Bundy nonchalantly leans on the Leon County jail wall as the indictment charging him with the murder of two Florida State University coeds is read to him. Only a psychopath would show such a disinterested attitude.
Factor 1 (personality traits) but not necessarily with scores on Factor 2 (unstable and antisocial lifestyle). Low IQ is associated with high scores on Factor 2, which describes sociopaths more than psychopaths, but not with those on Factor 1 (Harris, Skilling, & Rice, 2001; Patrick, 2006). Individuals who score high on Factor 1 (mostly psychopaths) are less likely than those who score high on Factor 2 (mostly sociopaths) to improve with age (Meadows & Kuehnel, 2005).

Hare (1993) considers psychopathy to be primarily biological in origin: “I can find no convincing evidence that psychopathy is the direct result of early social or environmental factors” (p. 170). Similarly, Blair (2008) notes that “currently, there are no known environmental factors (including trauma and neglect) that can give rise to the pathophysiology seen in psychopathy” (p. 2557). Just because researchers have not found any environmental factors that cause psychopathy does not mean that such factors have no effect on how psychopathy is behaviorally expressed. Cesare Lombroso probably had psychopathy in mind before the term was coined with his “morally insane” born criminals, that is, those “who appear normal in physique and intelligence but cannot distinguish good from evil” (in Gibson, 2002, p. 25). Of course, modern researchers no longer talk of criminals as evolutionary throwbacks whose behavior is “unnatural.” Rather, they view psychopaths as behaving exactly

### TABLE 9.2
Personality and Behavioral Traits Measured by Hare’s PCL-R

<table>
<thead>
<tr>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glibness/superficial charm</td>
<td>Need for stimulation/Proneness to boredom</td>
</tr>
<tr>
<td>Grandiose sense of self-worth</td>
<td>Parasitic lifestyle</td>
</tr>
<tr>
<td>Pathological lying</td>
<td>Poor behavioral control</td>
</tr>
<tr>
<td>Cunning/manipulative</td>
<td>Promiscuous sexual behavior</td>
</tr>
<tr>
<td>Lack of remorse or guilt</td>
<td>Lack of realistic long-term goals</td>
</tr>
<tr>
<td>Emotionally shallow</td>
<td>Impulsiveness</td>
</tr>
<tr>
<td>Callous/lack of empathy</td>
<td>Irresponsibility</td>
</tr>
<tr>
<td>Failure to accept responsibility for actions</td>
<td>Juvenile delinquency</td>
</tr>
<tr>
<td></td>
<td>Early behavioral problems</td>
</tr>
<tr>
<td></td>
<td>Revocation of conditional release</td>
</tr>
</tbody>
</table>

Robert and Stephen Spahalski are twin brothers born in December 1954, in Elmira, New York. Their parents were divorced when they were 12 years old. They were inseparable during their childhood, which was spent daring one another to commit more and more serious antisocial acts. On one of their stealing excursions when they were barely 17, Stephen killed a store owner. When Stephen was sentenced to prison for his crime, Robert’s life fell apart as he became a crack cocaine addict and a gay prostitute. Robert was sent to prison for a 1973 burglary, and from that date onward he was in and out of prison until 1989, when his behavior became more bizarre and deadly. Although he was more successful in avoiding major incarcerations from 1990 to 2005, it was during this time that he went on a killing spree, killing three women and one man.

**Theory in Action**

**Evil Minds: The Spahalski Twins**

Photo 9.5

Mug shots of Robert and Stephen Spahalski
Robert's first known victim was Moraine Armstrong, a fellow addict and prostitute, in 1990. He then strangled Adrian Berger, his girlfriend, who was also an addict and prostitute. Neither of these murders was solved until Spahalski confessed to them in 2005. Spahalski also confessed to killing Charles Grande in 1991 after Grande had refused to pay him for his sexual services. Robert was arrested in 1991 on suspicion for committing this crime but was released. Then in 2005 Spahalski was smoking crack with his girlfriend's next-door neighbor, Vivian Irizarry, when, as he explained to detectives, “all of a sudden I saw her as a demon. I freaked out.” He bludgeoned and strangled the “demon” he saw and then spent the rest of the weekend on a crack binge.

After Robert came down from his extended high, he walked up to the desk at the Rochester, New York, police department and turned himself in. It was during the subsequent interrogation that he confessed to the other murders mentioned. Spahalski is suspected of other murders in upstate New York that have a number of resemblances to the murders he admits to. At trial, Robert pled not guilty by reason of insanity, claiming he suffered from post-traumatic stress disorder and that his murders were committed in a state of drug-induced psychosis. However, he later withdrew that plea, and he was sentenced to 100 years imprisonment. When a corrections officer showed Stephen a news article about Robert’s confession to four murders, he replied, “I thought I was the only murderer in the family.”

As for Stephen, he was paroled in 1981 after serving 8 years for the murder of the store owner but was arrested, convicted, and sent back to prison for robbery and kidnapping in 1982. He was paroled again in 1999 and was back in prison within months on a parole violation. Released again in 2006, he was arrested for robbery in 2010 and again was incarcerated.

How does one account for the evil behavior of these twins? The twins were raised in an intact home during their most formative years, both graduated high school, and there is no indication that either of them was ever physically, sexually, or psychologically abused. Their early onset of antisocial behavior indicates some sort of neurological or temperamental deficit, but none has ever been identified. The pattern of daring one another to commit ever more serious acts of antisocial behavior may have set in motion a snowball of behaviors that, once set rolling, could not be stopped. We can infer from their behavior that they have high levels of a number of traits mentioned in this chapter associated with criminal behavior and low levels of traits associated with prosocial behavior. Both were sensation seekers who relished the thrills of taking risks and getting away with it, and both obviously lacked empathy (when asked why he killed the store owner, Stephen matter-of-factly replied, “Because he deserved it”).

**Discussion Questions**

1. Take a look at the traits and behaviors listed in Hare’s PCL-R presented in this chapter and then go to http://murderpedia.org/male.S/s/spahalski-robert.htm for a more thorough treatment of Robert. Is there anything in his story that might indicate that Robert (or Stephen) is a psychopath?

2. Do you think that twins like Robert and Stephen were “destined” to behave more or less similarly by their shared genes?

3. Explain how Freud’s possible account of the twins’ behavior might differ from an account based on Glen Walters’s lifestyle theory.

**Sources:** Benson, 2010; Blanco, n.d., c

As they were designed by natural selection to behave (Quinsey, 2002). This does not mean that their behavior is acceptable or that we cannot consider it morally pathological and punish it accordingly.

If psychopathy is a behavioral strategy forged by evolution, there must be some biological markers that distinguish psychopaths from the rest of us. One of the most consistent physiological findings about psychopaths is their greatly reduced ability to experience the social emotions of shame, embarrassment, guilt, and empathy (Scarpa & Raine, 2003; Wiebe, 2004, 2011). Social emotions modify brain activity in ways that lead us to choose certain responses over others. Feelings of guilt, shame, and empathy prevent us from doing things (e.g., steal, lie, cheat) that might be to our immediate advantage but would cost us in reputation and future positive relationships if discovered. Hundreds of studies using many different methods have revealed over and over that the defining characteristic of psychopaths is their inability to tie the brain’s cognitive and emotional networks together and thus form a conscience (reviewed in Walsh & Bolen, 2012).
The United States is no stranger to mass shootings. Over the past few years, there have been a number of shootings incurring massive carnage and death at the hands of armed criminals. For example, 49 people were killed at a nightclub by a gunman in Orlando in June 2016. Whenever extreme (and rare) events like this occur, commenters begin trying to explain why the events happened and what caused the individuals to do what they did. Psychological problems like mental illness within the perpetrators are routinely proposed as the culprit. Watch the news after a mass shooting and almost without exception you will hear someone blame mental illness. Do you think that psychological problems such as mental illness are the sole, or at least primary, cause of mass shootings? Do you think that mental illness is a convenient scapegoat? Would improving access to mental health and psychological treatment reduce mass shootings on their own?

This inability is the strongest area of agreement among psychopathy researchers. What it essentially means is that the amygdala (part of the brain that plays a role in emotional memories, particularly fear) and the prefrontal cortex (part of the brain that is considered the brain’s “chief executive officer”) do not have strong connections in psychopaths as they do in the brains of normal people (van Honk, Harmon-Jones, Morgan, & Schutter, 2010). This certainly helps to explain the difficulties of psychopaths in processing emotions in socially approved ways.

Figure 9.2 shows the location of some brain areas mentioned in this chapter. The prefrontal cortex is a large area located just above the eyes and extends about one-third of the way from the forehead to the back of the head.

**Sociopathy**

As noted, some theorists believe sociopaths are different from psychopaths. Lykken (1995) colorfully describes sociopaths as “feral creatures, undomesticated predators, stowaways on our communal voyage who have never signed the Social Contract” and states that their behavior is “traceable to deviant learning histories interacting, perhaps, with deviant genetic predilections” (p. 22). Linda Mealey (1995) sees sociopaths as individuals who employ a “cheating strategy not as clearly tied to genotype [as psychopaths]” (p. 539). One of the biggest factors contributing to sociopathy is poor parenting, which is itself a function of the increase in the number of children being born out of wedlock (Rowe, 2002).

According to a study of 1,524 sibling pairs from different family structures taken from the National Longitudinal Survey of Youth, Cleveland, Wiebe, van den Oord, and Rowe (2000) found that, on average, unmarried mothers have a tendency to follow an impulsive and risky lifestyle and to have a number of antisocial personality traits, be more promiscuous, and have a below-average IQ. Families headed by single mothers with children fathered by different men were found to put offspring most at risk for antisocial behavior. Two-parent families with full siblings placed offspring at the lowest risk. Similar findings and conclusions from a large-scale British study have been reported (Moffitt & E-Risk Study Team, 2002). Finally, Barber (2004) found that the rate of out-of-wedlock births was by far the strongest predictor of a composite measure of violent crime (e.g., murder, rape, assault) in his sample of 39 countries from Argentina to Zimbabwe.

The Office of Juvenile Justice and Delinquency Prevention (OJJDP) claims that delaying pregnancy until 20 or 21 years of age would lead to a 30% to 40% reduction in child abuse and neglect and could potentially save $4 billion (just under $6 billion in 2016 dollars) in law enforcement and corrections costs because offspring of teenage mothers are 2.7 times more likely than offspring of adult mothers to be incarcerated (Maynard & Garry, 1997).

**Mental Illness and Crime**

While psychopaths and sociopaths may be morally “insane,” they are not mentally ill. Individuals with such mental disorders as schizophrenia, bipolar disorder, and severe depression are mentally impaired and pose risks for criminal behavior. The World Health Organization defines mental disorders as “clinically significant conditions characterized by alterations in thinking, mood (emotions), or behaviour associated with personal distress and/or impaired functioning” (in Brookman, 2005, p. 87). Mental health disorders take a heavy toll on individuals, families, the community at large, and the criminal justice system. Only the most
severely mentally impaired individuals are hospitalized today because most of them are able to function adequately in the community with proper medication and support (Lurigio, 2001). Jails and prisons have become surrogate mental hospitals absorbing members of the mentally ill population who were previously hospitalized. Robinson (2004) reports that there are now about 3.5 times more mentally ill people in American prisons and jails as there are in psychiatric hospitals.

There are many different types of mental disorders, but we concentrate on schizophrenia because it is the disorder most strongly associated with criminal behavior (Walsh & Yun, 2013). A review of 47 studies of the schizophrenia–criminal behavior relationship found 42 to be positive, 3 nonsignificant, and 2 negative (Ellis & Walsh, 2000). Researchers in Denmark looking at more than 300,000 individuals followed to age 43 found that persons with histories of psychiatric hospitalization (90% schizophrenic) were 3 to 11 times more likely to have criminal convictions than people with no psychiatric history (Hodkins, Mednick, Brennan, Schulsinger, & Engberg, 1996). A Swedish study reported that people with psychosis are about 4 times more likely to have a criminal record than members of the general population (Tuninger, Levander, Bernce, & Johansson, 2001).

Researchers debate the degree to which schizophrenia per se is responsible for violent behavior. Elbogen and Johnson (2009) assert that it is “simplistic as well as inaccurate to say the cause of violence among mentally ill individuals is the mental illness itself” (p. 159). Researchers of this persuasion attribute violence committed by the mentally ill to be the result of comorbid factors such as substance abuse, antisocial personality disorder, and homelessness and noncompliance with medical regimens. Others maintain that a modest but significant relationship exists between violence and mental illness independent of these factors (Van Dorn, Volavka, & Johnson, 2012). Whatever the case may be, lifetime substance abuse/dependence among persons with schizophrenia is estimated to be at 50% versus 15% of the general population (Mueser, Deavers, Penn, & Cassisi, 2013). The abuse of alcohol and drugs may be an attempt to self-medicate, which then may lead to dependence, putting persons with schizophrenia at even greater risk for offending.

One outstanding study using data from the nationwide Swedish registers of hospital admissions and criminal convictions analyzed 8,003 patients diagnosed with schizophrenia between the years 1973 and 2006. Their risk of violent crime was compared with the risk of 80,025 individuals from the general Swedish population controlling for demographics such as age, sex, income, and marital and immigrant status. The authors found that 13.2% of patients with schizophrenia had at least 1 violent offense compared with 5.3% of the general population controls. However, the risk was greatly elevated with patients who were also drug and alcohol abusers, with 27.6% committing at least one violent offense. The researchers also compared schizophrenia patients who had unaffected siblings. In this comparison, 28.3% of those with schizophrenia had a violent offense compared with 17.9% of their unaffected siblings, which is a larger percentage than schizophrenic patients take as a whole. This suggested to the authors a significant familial genetic or early environmental effect that has to be considered when assessing the association between schizophrenia and violence (Fazel, Långström, Hjern, Grann, & Lichtenstein, 2009).

Nevertheless, the majority of people with schizophrenia are nonviolent and are more likely to be victims of violence than perpetrators. Those most at risk for victimization are also those most at risk for committing violence. A meta-analysis of nine studies of individuals with schizophrenia or some other psychosis found that they were 2.3 to 140.4 times more likely to be victimized than the nonmentally ill in the general population (Taylor, 2008).

Evaluation of the Psychosocial Perspective

Psychologists like to point out that whatever social conditions may contribute to criminal behavior must influence individuals before they can affect behavior. Social factors matter and may “set the stage” for crimes, but real flesh-and-blood people commit them. Individuals are differentially vulnerable to the criminogenic forces existing in the environment because they bring different characteristics to it. This person–environment interaction is captured by the old saying, “The fire that melts the butter hardens the egg.” Psychologists largely take the fire (the environment) for granted and look for how the butter and eggs of
our differing constitutions react to the heat of the fire. Of course, we can never take either the environment or the individual for granted because each affects and is affected by the other.

The relationship between IQ and criminal behavior has always been contentious. Adler, Mueller, and Laufer (2001) voice the familiar criticism that IQ tests are culturally biased despite the findings of the National Academy of Sciences and the APA’s Task Force on Intelligence cited earlier. They also cite the “debate” over whether genetics or the environment “determines” intelligence. This implies an either/or answer is possible, but since scientists involved in the study of intelligence unanimously agree that all traits are necessarily the result of both genes and environment, it is a monumental nondebate (Carey, 2003; Flynn, 2007).

One of the most pervasive criticisms of psychological theories is that they focus on “defective” or “abnormal” personalities (Akers, 1994). If by “abnormal” we mean statistical abnormality (below or above the average on a variety of traits), all theories of criminality focus on abnormality. Our personalities consist of normal variation in traits we all possess, and these are products of the interaction of our temperaments and our developmental experiences. Lifestyle theory emphasizes that criminals are at the extremes of normal distributions of many traits but focuses mainly on how criminals think as a result of their biological constitutions and early experiences. However, there is always some risk in attaching a psychiatric label to individuals.

The use of “hard” measuring instruments to measure ANS and RAS arousal provides us with more accurate predictions about future offending than simple “paper and pencil” methods, although we must not forget that the influences of these arousal mechanisms are strongly conditioned by the social environment. Nor should we forget that even if hard measures are better able to identify and predict, they still don’t tell us how we can change criminal propensity or deal with the ethical problems involved in predicting what people “might do” in the future. Predictions about human behavior are far from foolproof, and there can be many false positives (predicting something will happen and it doesn’t) as well as false negatives (predicting something won’t happen and it does).

Table 9.3 summarizes the key concepts of each of the theories presented in this chapter as well as their strengths and weaknesses.

<table>
<thead>
<tr>
<th>Theory</th>
<th>Key Concepts</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arousal</td>
<td>Because of differing ANS and RAS physiology, people differ in arousal levels they consider optimal. Underarousal under normal conditions poses an elevated risk of criminal behavior because it signals fearlessness, boredom, and poor prospects for socialization.</td>
<td>Allows researchers to use “harder” assessment tools such as EEGs to measure traits. Ties behavior to physiology. Explains why individuals in “good” environments commit crimes and why individuals in “bad” ones do not.</td>
<td>May be too individualistic for some criminologists. Puts all the “blame” on the individual's physiology. Ignores environmental effects.</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>Crime is a patterned way of life (a lifestyle) rather than simply a behavior. Crime is caused by errors in thinking, which results from choices previously made, which are the results of early negative biological and environmental conditions.</td>
<td>Primarily a theory useful for correctional counselors dealing with their clients. Shows how criminals think and how these errors in thinking lead them into criminal behavior.</td>
<td>Concentrates only on thinking errors. Does talk about why they exist but pays scant attention to these reasons.</td>
</tr>
<tr>
<td>Antisocial</td>
<td>There is a small stable group of individuals who may be biologically obligated to behave antisocially (psychopaths) and a larger group who behave similarly but whose numbers grow or subside with changing environmental conditions (sociopaths).</td>
<td>Concentrates on the scariest and most persistent criminals in our midst. Uses theories from evolutionary biology and “hard” brain imaging and physiological measures to identify psychopaths.</td>
<td>Some doubt the division of psychopath and sociopath as separate entities. While they are the scariest criminals, they are only a small proportion of all criminals.</td>
</tr>
</tbody>
</table>
Policy and Prevention: Implications of Psychosocial Theories

The best anticrime policies are environmental since they are aimed at reducing the prevalence of crime in the population. But because policies aimed at “root causes” have had little impact on the crime problem in the past (Rosenbaum, Lurigio, & Davis, 1998; Tanner, 2012), perhaps it is wise to focus efforts on those who are already committing crimes rather than on conditions external to them. A variety of such programs aimed at rehabilitating offenders operate under the assumption that criminals are rational individuals plagued by ignorance of the long-term negative consequences of their offending behavior.

There is wide disagreement on how well rehabilitative programs work and even on the criteria for success. Reviews of studies with strict criteria for determining success find recidivism rates lowered by from 8% to 10% (Andrews & Bonta, 1998). These small percentages do not seem like much, but they represent many thousands of crimes that were not committed. Effective rehabilitation programs use multiple treatment components; are structured and focus on developing social, academic, and employment skills; use directive cognitive–behavioral counseling methods; and provide substantial and meaningful contact between treatment personnel and offenders (Sherman et al., 1997; Walsh & Stohr, 2010).

Walters’s theory deals with what correctional counselors call “stinkin’ thinkin’” (remember Calvin in Chapter 5?) and who see their task as guiding offenders to realize how destructive their thinking has been in their lives. Correctional counselors see offenders’ problems as resulting from illogical and negative thinking about experiences that they reiterate in self-defeating monologues. The counselor’s task is to strip away self-damaging ideas (such as techniques of neutralization) and beliefs by attacking them directly and challenging offenders to reinterpret their experiences in a growth-enhancing fashion. The cognitive–behavioral counselor operates from the assumption that no matter how well offenders come to understand the remote origins of their behavior, if they are unable to make the vital link between those origins and current behavioral problems, it is of no avail.

Psychopaths are poor candidates for treatment. Hare (1993) states that because they are largely incapable of the empathy, warmth, and sincerity needed to develop an effective treatment relationship, treatment often makes them worse because they learn how to better push other people’s buttons. Old age seems to be the only “cure” for the behaviors associated with this syndrome.

Summary

- Psychosocial criminology focuses largely on intelligence and temperament as the most important correlates of criminal behavior. Low intelligence as measured by IQ tests is thought to be linked to crime because people with low IQ are said to lack the ability to correctly calculate the costs and benefits of committing crimes, and temperament is linked to crime largely in terms of impulsiveness. Intelligence is the product of both genes and environment. We concluded that IQ is probably related to crime and delinquency through its effect on poor school performance.
- Temperament constitutes a person’s habitual way of emotionally responding to stimuli. The kind of temperament we inherit makes us variably responsive to socialization, although patient and caring parents can modify a difficult temperament.
- Our personalities are formed from the joint raw material of temperament and developmental processes. A number of personality traits are associated with the probability of engaging in antisocial behavior, particularly high levels of impulsiveness, negative emotionality, and sensation seeking and low levels of conscientiousness, empathy, altruism, and moral reasoning.
- Classical conditioning via the ANS constitutes the emotional component of conscience and precedes the cognitive component. People differ in the responsiveness of their ANS, with those having a sluggish ANS being difficult to socialize. RAS arousal is also important to understanding criminal behavior because RAS reducers are chronically bored and seek to increase stimuli to alleviate that boredom. This may result in criminal behavior. Although people differ greatly in
their behavior depending on their innate temperaments (a function of arousal levels), their developmental and other environmental experiences also play huge parts.

- Lifestyle theory views criminal behavior as a lifestyle rather than just another form of behavior. The lifestyle begins with biological and environmental conditions that lead criminals to make certain choices, which in turn lead to criminal cognitions. The theory focuses on these cognitions or “thinking errors.” Thinking errors lead criminals into behavioral patterns that virtually guarantee criminality. The theory was devised primarily to assist correctional counselors in changing criminal thinking patterns.

Psychopaths are at the extreme end of the antisocial personality continuum. Most researchers regard the psychopathy syndrome as biological in origin, whereas some view sociopaths as formed by both genetics and the environment, with the environment playing the larger role. Many hundreds of studies have shown psychopaths to have limited ability to tie the rational and emotional components of thinking together.

- Some researchers assert that the primary cause of psychopathy is inept parenting by single mothers. Other theorists point to the fact that children born to such mothers also receive genes advantageous to antisocial behavior from both parents in addition to an environment conducive to its expression.

### Exercises and Discussion Questions

1. Since psychologists have long identified temperaments as things that make is easy or difficult to socialize children, why do you think Gottfredson and Hirschi ignored temperaments in their self-control theory?

2. Honestly rate yourself from 1 to 10 on the traits positively associated with antisocial behavior (impulsiveness, negative emotionality, and sensation seeking) and then on the traits negatively related with antisocial behavior (conscientiousness, empathy, and altruism).

3. Explain the role low arousal of the autonomic nervous system and the reticular activating system may play in the development of psychopathy.

4. How might anomie/strain theory benefit from incorporating information on IQ and conscientiousness?

### Useful Websites

- IQ. www.psyonline.nl/en-iq.htm
- Personality disorders. www.focusas.com/PersonalityDisorders.html

### Chapter Terms

- Agreeableness 173
- Altruism 173
- Antisocial personality disorder 179
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