Psychological Theories of Criminal Behavior

Laurence Miller

As objectively scientific as we may like to regard them, theories of criminal behavior are hardly immune to the vicissitudes of the prevailing culture. Indeed, the cycles of biological vs. psychological vs. sociological theories of crime seem to rise and fall in waves, according to the prevailing political and economic climate of the times. Under conservative administrations, the predominant attitude seems to be that people are responsible for their own behavior, so that when winners win it is to their credit, and when losers lose, it is their own fault. In more liberal political climes, we are more likely to regard ourselves as our brothers' keepers, and believe that how we structure the social and economic hierarchy can influence the actions of our fellow citizens for good or for ill. Not bad brains or bad morals, but bad social policies are what turn people into criminals, according to this view.

The present chapter introduces the reader to the main psychological models of criminality that consider the inner man but respect the outer influences upon his development—for good or for ill.

Miller Psychological Associates, Boca Raton, FL 33486, USA e-mail: DOCMILPHD@aol.com

Early Criminal Psychological Typologies

Given its disruptive effects on societies around the world, and in all historic eras, people have always attempted to account for criminal behavior since the beginning of civilization. More recently, this eventuated in what might be termed the "era of typologies" of criminal behavior, spanning the past 100 years.

Early Twentieth Century

At the beginning of the last century, the psychiatrist Havelock Ellis (1907) proposed a division of criminals into three major types:

Instinctive Criminal. This was the "born criminal" made popular in both the pulp fiction and scientific writings of the day. This individual was an impulsive, uncontrolled brute (in many depictions, complete with caveman-like beetling brows), whose criminality was so much a part of his personality and identity as to be impervious to correction or change, what Ellis characterized as a "moral monster." Ellis observed that this kind of dangerous, habitual offender is, thankfully, relatively rare.

Occasional Criminal. More common was the usually law-abiding individual who may on occasion succumb to the impulse to commit a crime

© Springer International Publishing AG 2017 V.B. Van Hasselt, M.L. Bourke (eds.), *Handbook of Behavioral Criminology*,

DOI 10.1007/978-3-319-61625-4_4

L. Miller (🖂)

out of economic necessity, social pressure, or other situationally motivating factor. However, with repeated acts, and especially with the reinforcement of criminal peers, some occasional criminals might develop a taste for their depredations and evolve into the next type.

Habitual Criminal. This person has, over time, come to adopt crime as a way of life. While usually not as violent and dangerous as the instinctive criminal, the habitual criminal may engage in a string of petty crimes, punctuated by the sporadic major felony, until he is ultimately caught.

Mid-Twentieth Century

Hans Abrahamsen (1952) took a more explicitly psychological approach, derived partly from psychodynamic theory, to categorize criminal offenders into four categories:

Monetary offenders are motivated by practical, materialistic needs; they steal for money or other valuables, or commit violence to maintain lucrative criminal territories.

Neurotic offenders are impelled by unresolved unconscious conflicts, which give their crimes a seemingly "senseless" character, such as in some cases of kleptomania, firesetting, or sexual fetishism.

Unconscious guilt drives still other offenders, the primary motivation being to place themselves at risk of being caught and punished; this subtype may sometimes overlap with the neurotic offender above.

Character disorder underlies the criminal activity of those offenders described as pathological liars and cheaters, swindlers and conmen, alcoholics and drug addicts, nymphomaniacs and pedophiles, rapists and murderers.

Latter Twentieth Century

Allen Edward Guttmacher (1972) divided criminals into four groups, including:

Normal criminals. What is "normal" about these offenders is simply that they are the most

common type, typically raised in dysfunctional families, associating with like-minded criminal peers, and generally engaging in a pattern of repetitive, petty, and mostly nonviolent crime.

Accidental or occasional criminals. Those in this smaller group are ordinarily law-abiding, but are lured or pressured into isolated acts of crime by particular persons or circumstances.

Organically or constitutionally predisposed criminals. These are criminals whose mental retardation, dementia, epilepsy, or other organic brain syndrome render them especially susceptible to impulsive criminal behavior or to being influenced by others to commit illegal acts.

Psychopathic or sociopathic criminals. This is the hard core group of dangerous, violent, repeat offenders who exploit and injure other people seemingly without compunction or restraint.

Criminal Psychology Typologies: Common Factors

Distilling the common elements across these typologies seems to identify a number of prototypes: (1) a mostly law-abiding citizen that is occasionally tempted or goaded into committing an isolated crime; (2) a more habitual criminal who makes a lifestyle out of mostly petty offenses, but occasionally may commit a major offense; (3) a hard core predator who regularly commits serious offenses; and (4) a disturbed offender who, out of neurosis, psychosis, or organic brain syndrome is either driven, or cannot stop himself, from committing crimes, many of which may have a bizarre or seemingly senseless pattern. In modern criminological theory and daily forensic psychology practice, these major types still appear to have practical currency (Miller, 2012).

Psychodynamic Theories of Crime

Psychodynamic, or *psychoanalytic*, models of the mind stem from the work of Sigmund Freud and his followers, although Freud himself would have been the first to concede that the philosophical

foundations of his theories go back further in time (Ellenberger, 1970; Miller, 1991b).

Conscious and Unconscious Motives

A basic assumption of psychodynamic theory is that a large portion of human motivation and mental life is unconscious. We may think we are behaving for self-chosen, rational reasons, but much of the true motivation for what we do is purposefully kept out of conscious awareness. This is because much of our true motivation for doing things ultimately stems from sexual and aggressive instincts whose overt expression we are barely able to restrain under the demands of civilized living. In this model, human personality is formed in childhood as the result of how successfully each child negotiates the conflicts around sex and aggression that arise in a largely invariant set of developmental stages. Failure to adaptively work through these conflicts between instinctual drives and parental controls-later represented by the demands of society-leads to unhealthy repression of these conflicts and the potential development of various kinds of personality disturbance and psychopathology. On a day-to-day level, repressed instinctual sexual energy (libido) could also impel unconscious material to leak out in disguised form through the "big three" expressive modalities of psychoanalytic theory: symptoms, dreams, and parapraxes ("Freudian slips").

Tripartite Mental Model

Freud developed several paradigms of the mind to encompass his theories, but the final model he endorsed, and the one most recognized today, was a tripartite model consisting of the id, ego, and superego. The *id* is the repository of instinctual drives and urges, a seething mental cauldron of secret desires that would be too disturbing for the individual to consciously acknowledge. Through development, the individual learns how to satisfy his or her instinctual needs (food, sex, power) by dealing constructively with reality, the main task of the *ego*, which employs the more rational cognitive functions of reason, reflection, memory, planning, organization, and task-persistence that enable the person to get what he or she needs in an appropriate manner, e.g., buy-ing a meal at a restaurant instead of stealing someone else's sandwich, or bringing flowers to woo a prospective romantic partner instead of committing rape.

However, whereas the ego knows how to negotiate the demands of the real world to get the person's needs satisfied, it does not necessarily know when it is appropriate to do so; i.e., the ego is practical but amoral. As part of the process of learning the rules for being a socialized, civilized human being, the developing child internalizes the societal demands, strictures, and punishments as expressed by the first lawgivers he or she ever knows, i.e., mom and dad, and these parental dicta are later reinforced by the formal laws and conventional rules of school life, work life, and society in general. Out of this enculturation process develops each individual's superego, the codex of morality that governs our law-abiding behavior-what most people would call a conscience. In the best case, the child successfully assimilates reasonable parental rules, which are modified as appropriate to the child's age and growing responsibility, until a confident, independent, and well-socialized adolescent and young adult emerges. Yet, overly lax, excessively harsh, or confusingly inconsistent parental caretaking and discipline can send the superego careening in any number of unhealthy trajectories. Children with weak superegos fail to develop internalized restraints and therefore spend their lives guiltlessly gratifying their appetites at the expense of others, unmindful and uncaring of the harm they cause, the epitome of the psychopath. Conversely, an overly harsh and punitive superego binds the individual in anxiety and social inhibition, and leads the person to become selfdoubting, self-loathing, obsessive-compulsive, and/or paranoid. In these cases, internalized anger at oneself may be expressed as anger at others, leading to seemingly paradoxical outcomes: both too-weak (stunted conscience) and too-harsh (reactionary lashing out) superegos may be associated with habitual aggressive, antisocial behavior.

Defense Mechanisms

To keep unwanted thoughts, urges, and painful truths about oneself out of conscious awareness, the ego mobilizes an arsenal of defense mechanisms, described most extensively by Anna Freud (1948), Sigmund's daughter. In moderation, psychological defenses are actually adaptive because they allow us to maintain a reasonable degree of self-esteem and productive motivation in daily life; few of us would be comfortable facing all of our own skeletons. Used excessively, however, defense mechanisms throttle self-insight and reduce us to blinkered automatons, buffeted to and fro by our repressed desires, but remaining enigmas to ourselves (even if our motives are sometimes transparently obvious to others). The major classes of defense mechanism, and their possible relationship to criminal or antisocial behavior, are as follows:

Repression. This is the basic defense mechanism that underlies all the others. It is an automatic, unconscious process that the ego uses to keep unwanted psychic material from awareness, e.g., not thinking about how you have hurt someone without being aware that you are not thinking about it.

Suppression. A conscious, purposeful effort by the person to keep painful information out of awareness, i.e., deliberately forcing yourself not to think about it: "I know that getting that student drunk and having sex with her was bad, but I just won't dwell on it." This is often aided by distraction: "I'll just think about something else."

Denial. The person deliberately refuses to recognize a painful truth that is otherwise objectively obvious: "Oh, no, I did not steal that laptop; it really belongs to me. See—it's the same brand as mine."

Rationalization. Coming up with a superficially logical or even laudable reason for something that is irrationally or malevolently motivated: "We're not stealing these clothes from the store; we're 'liberating' them to distribute to

the poor and even out the unfair economic disparity of our unjust society. You should thank us."

Displacement. You want to express an emotion against one person, but it's not safe to do so (usually because they have some power over you or you need them for something), so you take it out on someone safer or more familiar (e.g., your boss has been picking on you, so you come home and violently explode on your family for some minor irritation).

Projection. Repudiating your own wishes, feelings, and motives by attributing them to someone else: "You hate me, you just want me to fail so that you'll look good at my expense. I'll get you for that."—when it's really you that harbors the resentment against the other's success. Projection is a fundamental defense mechanism underlying some forms of clinical paranoia, sometimes leading to preemptive retaliatory violence.

Reaction formation. Speaking or acting in just the opposite way to how you really feel, but being unaware that you are doing so, thus fooling yourself into believing that is how you really feel. For example, you lather syrupy praise on someone you secretly detest, or you join a celibate or peaceful cult in response to your own repressed uncontrollable sexual or aggressive urges. If challenged, you may resort to rationalization to explain your current lifestyle.

Acting out. Sometimes considered a combined subform of projection and reaction formation, the individual repudiates his repressed pain, shame, hurt, vulnerability, and weakness by aggressive displays that highlight displays of strength and rebellion. This is often imputed by criminal psychologists to some adolescents and young adults who "act out" the pain of their abusive upbringing by engaging in delinquent acts.

Sublimation. Considered the healthiest of the defense mechanisms, this turns a potentially destructive trait or predisposition into adaptively constructive behavior by channeling dark urges into socially beneficent actions. For example, a boy who likes to cut up animals becomes a respected surgeon instead of a serial killer; another adolescent who finds himself attracted to child pornography becomes a sex crimes

investigator instead of a pedophile; a third young man who is physically large and loves to fight becomes a competitive athlete instead of a street thug.

NeoFreudian Criminal Psychology

Notwithstanding the examples above, psychodynamic theory has mostly remained within the realm of clinical diagnosis and treatment, not forensics. Nevertheless, a few scholars in the psychoanalytic camp have attempted to apply these concepts more directly to criminology. Freud himself emphasized the role of sexuality (eros) in human development, and only later in his career (Freud, 1915, 1923, 1930, 1933) came to acknowledge the role of aggression in human personality, after the horrors of the First World War shattered the illusions of European Victorian gentility and rendered inescapable the reality of humanity's violent side. Even then, Freud seemed to have had trouble accepting human aggression on its own terms and relegated it an artifact of a quasi-metaphysical death instinct (thanatos), whereby all life sought to regain its original state of inorganic stasis.

Nevertheless, some of Freud's contemporaries and followers recognized the independent role of aggression in human mental life. An early Freud colleague, and later apostate, Alfred Adler (1912, 1926), wrote about the striving for superiority and the will to power that drove different forms of human behavior, including criminal behavior. Karl Menninger (Menninger 1938; Menninger, Mayman, & Pruyser, 1963) chronicled the ways in which the aggressive instinct manifested itself in both individual psychopathology and societal disruption. Many of the so-called neoFreudians, such as George S. Klein (1958), Heinz Hartmann (1939), and Riley Gardner, Holzman, Klein, Linton, and Spence (1959) placed greater emphasis on the cognitive functions of the ego and discussed how the ego could mold the aggressive instinct into something positive and productively forceful, or allow it to assume a malevolently destructive shape (see Miller, 1988, 1990, 1991a, 1992 for reviews).

More recently, William Menninger (2007) has used psychoanalytic theory to explain the dynamics underlying episodes of mass violence that have become increasingly common over the past decades, and which he conceives of as being triggered by what he terms *uncontained rage*. The initial stimulus for this rage is the perception of some (real or imagined) shame-producing injury, insult, disappointment, or frustration that is regarded as being profoundly unfair, producing what is called a *narcissistic wound*. This outrage is experienced as emotionally intolerable and cries out for some kind of retributory response against the presumed blameworthy party. As recent events have shown, the scope of the destruction is limited only by the lethality of available weaponry. As also highlighted by recent events, the particular rationalization chosen to justify the assault (religious, moral, sexual, or personal motives) often seems inconsequential, as the violent individual will find or create almost any rationalization for his, ultimately internally motivated, act. Note also that theorists from the earliest days of psychoanalysis have pointed out how the gun is not simply a mechanism for killing, but represents, in both shape and function, the ultimate symbol of male potency and power.

As a psychological treatment modality, psychoanalysis requires a considerable dedication of time, and effort, and finances, involving regular and frequent therapeutic sessions, often spanning years, in order to help the patient break through his resistances to recognizing and overcoming the defense mechanisms that keep him from bringing unconscious conflicts to awareness and working them through. Even then, as Freud often pointed out, the best that can be hoped for is to "transform neurotic misery into ordinary unhappiness." Certainly, as a way of counteracting criminal behavior, the enormous expenditure of clinical resources necessary to treat each individual offender would be impractical, even if their cooperation could be elicited. Yet, psychoanalysis survives today, less as a commonly utilized treatment modality as much as a source of ideas and concepts that still hold fundamental validity. For example, the fact that many of us harbor impulses, fears, and wishes we are partly

or wholly unaware of, and the importance of early social relationships in forming character. If anything, many people are actually gratified by the idea that they may have levels, depths, dimensions, and potentialities to their personality that may remain untapped and yet to be explored.

Behaviorist Models of Crime

Whereas psychoanalysis emerged from the fields of clinical psychiatry and medicine, with meanderings through introspective philosophy, *behaviorism* derived straight from academic and experimental psychology, via the works of Edward L. Thorndike (1932), Ivan Pavlov (1927), John B. Watson (1925), and B.F. Skinner (1938, 1953, 1974).

Reinforcement and Behavior

The central empiricist premise of behaviorism is that all behavior is shaped and maintained by its consequences, and that what happens to an organism and what it actually does is all we can objectively observe and study-no inferred mental models or putative psychodynamics tolerated here. In its most extreme view, the behavioral scientist recognizes no fixed, innate traits or instinctual forces that differentiate one human being from another, and any individual can learn to be a sinner or a saint, depending on the complex network of rewards and punishment he or she is exposed to, what behaviorists call contingencies of reinforcement. Language and higher thinking, although unique to man, nevertheless represent just ever-more complex forms of learned behavior. What the Freudians would call the "unconscious" is, for the behaviorist, comprised of contingencies of reinforcement that the person has simply never become aware of, or that he or she has been reinforced for keeping out of conscious awareness by paying attention to something else. In fact, consciousness itself is no more than the ability to describe and manipulate one's own contingencies of reinforcement.

Social Learning Theory

Applied to the field of criminology, behaviorism finds its most well-known expression in the *social learning theory* of Albert Bandura (1973, 1977), which recognizes that humans learn by observing others, as well as from direct feedback from their own experiences. Thus, in shaping our socialization within a given community, we can see what kinds of rewards and punishments happen to other people whose behavior we might wish to emulate. In some communities, if good things tend to happen to good people, that is the path we are likely to take; in other communities, where being the baddest punk on the block is what garners respect and material rewards, we will be swayed in that direction.

Differential Association Theory

At the end of the 1938 film, Boys Town, Father Flanagan, played by Spencer Tracy, fixes his gaze heavenward and intones, "There are no 'bad' boys." The good padre could have been describing differential association theory (Matsuenda, 1988; Silver, 2000, 2006; Silver, Mulvey, & Swanson, 2002; Sutherland, 1929, 1932), developed within the same era as the movie. Differential association theory posits that criminal behavior, like all behavior, is learned, and that there are indeed no innately "bad" children, no predestined "born criminals." In this model, young delinquents-to-be learn two things from the antisocial families and communities they may grow up in. First, they master the specific techniques and methodologies of crime, such as picking locks, using a firearm, or buying and selling drugs. Second, more broadly, they learn to internalize their identity as a criminal, a rebel, an outlaw, gleaned from their own needs and values and those of their peers, because this identity gives them a sense of meaning and efficacy unavailable through any alternative life activity. Then, to reinforce and concentrate this strength-affirming self-image, they restrict their contacts to, i.e., "differentially associate" with, like-minded fellows and tune out alternative lifestyle perspectives,

further cementing their criminal identity, which leads to further differential associations, and so on, in a recurrently reinforcing cycle of criminal identity affirmation. Readers familiar with behavior genetics will recognize that differential association theory psychologically tracks the sociobiological concept of *gene–environment correlation*, where individuals essentially select and create the very environments that reinforce their natural tendencies (see Lykken, 1995, 2000).

Mechanistically robotic as it is sometimes made to sound, behaviorism may actually be potentially far more optimistic than the previously discussed psychodynamic theories which posit churning instinctual conflicts formed during fixed developmental stages as the origins of personality and behavior. In the behaviorist model, all we need do to improve the individual, or the whole society, is discover the counterconditioning programs that will unlearn the bad behavior and teach more socially adaptive behavior. Or better yet, find out what is the "best" method of parenting and community socialization in the first place, and then apply this to communities across the country, sort of like a vast behavioral immunization program, to prevent our children from going down the wrong path to begin with. Albeit, such an ambitious social engineering project would be dauntingly more complicated than it sounds. However, the behavioral approach at least offers an aspirational model that could, if the basic theory is correct, one day improve the health and safety of societies worldwide (indeed, such a behavioristic Utopia was set out in novelistic form back in 1948 by B.F. Skinner himself, in his novel, Walden Two). However, most people intuitively have a hard time accepting the idea that the sum total of their lives can be articulated as a set of contingencies of reinforcement, which they find "dehumanizing," which is why behaviorism has never come close to capturing the popular imagination the way psychoanalysis continues to do (plus the fact that Freud talked about sex way more than Watson or Skinner did).

Self-Control Theory of Crime

It seems intuitively obvious that many crimes, especially "crimes of passion," result from a person's failure—due either to inability or unwillingness—to control his or her impulses. Indeed, "I couldn't help myself" is a standard exculpatory defense in criminal cases (Miller, 2012, 2013). The question is whether this is a generalized trait that can explain most criminal behavior.

Gottfredson and Hirschi (1990) developed their self-control theory of crime to explain why some people are more at risk for criminal behavior than others. A great deal of criminological and psychological research supports the idea that individuals characterized by low self-control are highly impulsive, egocentric, action-oriented, thrill-seeking, frustration-intolerant, easily irritated, prone to take risks, irresponsible to the obligations of school, work, family, and community, and frequently involved in deviant, maladaptive, self-defeating, aggressive, and criminal behavior. The role of low self-control in various crimes, including interpersonal violence, robbery, narcotics offenses, white-collar crimes, and generally recidivistic criminal behavior, has been widely supported, although it is probably not the only factor (Arneklev, Grasmick, & Bursick, 1999; Britt & Gottfredson, 2003; Cretacci, 2008; DeLisi, Hochstetler, & Murphy 2003; Evans, Cullen, Burton, Dunaway, & Benson, 1997; Gibson & Wright, 2001; Higgins, 2004;Longshore, Chang, Hsieh, & Messina, 2004; Paternoster & Brame, 2000; Piquero, MacDonald, Dobrin, Daigle, & Cullen, 2005; Pratt & Cullen, 2000; Schultz, 2004; Stewart, Elifson, & Sterk, 2004; Unnever, Cullen, & Pratt, 2003; Wiebe, 2003; Winfree, Taylor, He, & Esbensen, 2006).

In fact, many of the preceding descriptors sound like the traits associated with frontal lobe impairment which forms the basis of many neuropsychological theories of criminal behavior (Blair, Mitchell, & Blair, 2005; Glenn & Raine, 2008; Miller, 1987, 1990, 1998; Palermo, 2009; Raine, Meloy, Bihrle, Stoddard, & La Casse, 1998). However, self-control theory's pointed repudiation of any biological explanatory framework has thus far unfortunately limited what could certainly be a fruitful area of collaborative research into the cognitive neuropsychology of crime.

Crime and Human Nature

Attempting a grand synthesis of biology, psychology, sociology, economics, and politics, James Q. Wilson and Richard J. Herrnstein published their best-selling and now-classic volume, *Crime and Human Nature*, in 1985, at the height of what might be called the conservative social movement in American society. Based on exhaustive scholarship in multiple fields, these authors arrived at a conceptualization of criminal behavior that combines several key following factors, which coalesce and reinforce one another:

Innate traits. Impulsivity, low frustration tolerance, preference for short-term gains rather than long-term goals, and low IQ, especially low verbal IQ.

Family environment. Abusive or neglectful parenting and failure to teach self-control and socialization skills.

Subcultural factors. Association with delinquent peers and membership in gangs that endorse predatory criminal behavior as a mark of status.

Schools. These institutions influence the propensity toward criminal behavior in two ways: first, by the quality of education they provide as a means of personal betterment within the legitimate societal workforce, and second, by the values they inculcate as representatives of mainstream society.

Economics. This factor may heighten or reduce the tendency toward criminal behavior, depending on the way in which good or hard times influence the opportunities people have to legitimately earn what they want or turn to underground criminal economies, such as robbery or drug dealing.

Mass media. This has a twofold effect: first, setting up expectations of what constitutes the

"good life," and second, legitimizing and glorifying aggressive behavior through TV, movies, and sensationalistic journalism.

Criminal Thinking

In the traditional psychodynamic model, much attention is paid to unconscious emotional motivators or behavioral influencers. However, consistent with the work of the later neoFreudian *ego psychologists*, and paralleling the so-called "cognitive revolution" in general psychology, there has been a recent trend toward analyzing how criminals consciously think, reason, and rationalize to see if their mental processes are in fact fundamentally different from that of the noncriminal population (Samenow, 1984, 2002, 2007; Wellman, 1990; Yochelson & Samenow, 1976, 1977). Accordingly, in the typological tradition, a number of classifications of criminal thinking have been developed.

Criminal Thinking Styles

One of the first modern systematic explorations of criminal cognition came from the work of Yochelson and Samenow (1976) who emphasized a qualitative difference between the way career criminals conceptualize the world and the rest of us do. For example, the authors described three cognitive processes, spanning different time periods in the commission of a crime, that enable a criminal to carry out a given offense:

Corrosion. This is a process of rationalization and justification that allows the criminal to discount the psychological impediments prior to committing a criminal act: "I deserve what they all have"; "It's a dog-eat-dog world"; "Everybody does it"; "The victim deserves it."

Cutoff. At the time of the crime, any last qualms about committing the deed are banished by a rapid cognitive cutoff device, often accompanied by an internal verbal cue, sometimes expressed aloud: "Screw it"; "Let's rock"; "Just freakin' do it."

Power thrust. After the fact, the criminal continues to justify his actions and to bolster his self-image as a tough guy who takes what he wants: "I'm the man"; "No one messes with me"; "There are wolves and there are sheep, and I'm a wolf."

Criminal Cognitive Patterns

Walters (1990, 2002) has adapted and expanded Yochelson and Samenow's (1976) conceptualization to elaborate eight cognitive patterns that he believes characterize criminal thinking:

Mollification. Rationalizing criminal behavior by blaming external forces: "The deck is stacked against me: I have no choice but to steal"; "He disrespected me so I have to smack him down so I don't look like a punk."

Cutoff. Quickly squelching any thoughts that would deter a criminal act: "Just do it"; "Don't wuss out."

Entitlement. Feeling that one is special and has the right to commit the crime: "I'm smarter/ stronger than him, so I deserve to take what he's got"; "I bought her dinner, so she owes me sex, whether she wants to or not."

Power orientation. Having a need to be in control at all times: "They better know they can't mess with me"; "You gotta crack a few heads so they'll respect you."

Sentimentality. In some cases, the criminal tries to offset the perceived wrongfulness of his acts by invoking thoughts of the good things he has done: "Sure, I rob people—you gotta do that to survive. But at least I give some of that money to my old lady and her kids; I know plenty of guys who blow it all on drugs."

Cognitive indolence. Using mental shortcuts instead of trying to figure out complex problems: "I don't have time to think about getting extra money. I'll just buy those drugs and worry about the rent later."

Discontinuity. There is a lack of stability, reliability, and perseverance to the criminal's overall behavior and lifestyle; behavior is propelled impulsively, rather than being guided reflectively: "Hey, why waste brain cells thinking about consequences—I'm too smart to get caught." In many respects, this seems similar to the preceding category.

Hostile Attribution Bias

Hostile attribution bias is the predisposition to interpret otherwise harmless or neutral words and actions of others as having malicious intent: "The world is a mean place and people will always try to get you if you don't get them first." These are children, adolescents, or adults who always seem to be "looking for trouble," and this may overlap with the clinical syndrome of paranoid personality disorder (Miller, 1990, 2012). Vicious cycles usually arise when other people become irritated and alienated by the constant suspicion, even direct attacks, on the part of the subject, and so come to really shun, revile, or retaliate against him, which only fuels his hostile attribution bias still further, in an escalating vicious cycle of recrimination and violence (Graham & Hudley, 1994; Matthews & Norris, 2002; Nasby, Hayden, & DePaulo, 1980; Quiggle, Garber, Panak, & Dodge, 1992; Tiedens, 2001; Zelli, Huesman, & Cervone, 1995).

Me Versus Them

From detailed study of seriously violent inmates and parolees, Toch (1992) observed that these subjects harbor two main cognitive schemata that heighten their risk for violent behavior. *Selfpreserving strategies* consolidate and enhance one's own view of oneself as powerful, entitled, and deserving of respect and high status: "I'm big, I'm bad, so do what I say or stay out of my way." *Dehumanization of others* mentally reduces other people to inconsequential worms who deserve to be exploited or defeated in order to enhance the subject's own status: "Who cares what they think—I'm the boss."

Criminal Cognitive and Personality Traits

Analyzing FBI files utilized in criminal profiling, Palermo and Kocsis (2005) have derived a set of cognitive and personality traits that they believe underlie the thinking of habitual criminal offenders: *Egocentricity*. The criminal believes that the world revolves around him and that other people's possessions property, sex, and status—are his for the taking.

Impulsivity. Emotionally shallow, rapid, and nonreflective is the criminal's response style, with little regard for the consequences or long-range implications of his actions.

Frustration. The downside of habitually failing to look before you leap is that many of your decisions will not actually get what you want and may frequently bring you the exact opposite. Consequently, the offender may often feel powerless, overwhelmed and unable to handle the normal demands and responsibilities of life, but attributing this to the unfair and malevolent actions of others, dismissing his own role in this predicament, and leading him to project his anger outward onto others whom he either blames directly for his plight or at least resents for "unfairly" having what the criminal's blatantly unjust fate has denied him.

Narcissism. The criminal's frustration and outward projection of blame is underlain by a characteristic egocentricity, grandiosity, sense of entitlement, and hypersensitivity to criticism that is a core narcissistic component the criminal thinking style. For many criminals, failure to get the admiration and deference they think they deserve, leads to the aggressive acting-out of *malignant narcissism* (Kernberg, 1976), in which case the subject can go from seductively charming to explosively violent in the blink of an eye.

Obsessive-compulsiveness. Some criminals compensate for the impulsive, frustrated directionlessness of their lives by developing a rigid, opinionated, and stereotyped style of thinking and behavior; in essence, they veer back and forth between impulsive and compulsive, but virtually never attain that middle point of being adaptively reflective (Miller, 1989, 1990). Thus, their overall behavioral pattern shows a labile, inconsistent quality to it, often veering from a compulsive lack of flexibility at one point in time, to impulsive aimlessness at another; in both cases, perpetuating the sense of frustration noted earlier. Obsessive rigidity may also be seen in the

ritualistic behavior of some serial offenders (Miller, 2000, 2014a, 2014b).

Paranoia. It was David Shapiro (1965), the exponent of modern ego-psychology, who first delineated the continuities between the obsessive-compulsive and paranoid cognitive styles, both involving a rigid, stereotyped way of viewing the world and the actions of people in it. As numerous scholars have noted, many criminals carry around a major chip on their shoulder, mistrusting the motives of others and viewing every human interaction with suspicion. Being generally dishonest and deceptive themselves, they use the defense mechanism of *projection* (see above) to attribute these qualities to others, often provoking confrontations that only further confirm and entrench their jaded view.

Sadism. The essence of sadism is power, which is enjoyed through the infliction of pain and humiliation upon a vulnerable victim. This feeling of control and dominance is something the sadistic criminal craves, which explains why many crimes are committed with gratuitous violence beyond that necessary to accomplish a utilitarian goal (e.g., pistol-whipping or sexually molesting store employees and customers during a robbery). This sense of power offers a powerful antidote to the feelings of frustration and failure periodically experienced by many criminals, and, again, may be a key component of the motivation of some types of serial offenders (Miller, 2000, 2014a, 2014b).

Aggressivity. This is the obvious tendency of many criminals to use force as a means of getting what they want, but it also refers to a more general orientation toward interpersonal interactions, i.e., that talking and negotiating is for chumps and that power and dominance represent "the only language people listen to."

Ambivalence. Inconsistent in most things, this also applies to many criminals' relationships with other people, often showing conflicting feelings of love and hate toward mates, friends, and family members. In part, this is aggravated by the criminal's own lack of a stable self-image, which makes it hard to form stable relationships with others, and which is further fueled by his characteristic suspiciousness and mistrust of others around him; this, it should be noted, is a core feature of the borderline personality disorder (Miller, 2012).

Maladaptive Criminal Thinking Patterns

Recently, Mandracchia, Morgan, Garos, and Garland (2007) studied the thinking patterns of 435 convicted offenders, and derived a total of 77 *thinking errors* that they factor analyzed into three major categories:

Control. Most habitual criminals are into power in all aspects of their lives, and they shun any trace of weakness: it's all-or-nothing. To keep this inflated sense of invulnerability going, criminals attempt to control, manipulate, and intimidate others, while banishing any thoughts or feelings of anxiety or sentimentality from their consciousness.

Cognitive immaturity. In ironic contrast to their tough-guy image, many of these offenders are characterized by a childlike self-pitying attitude and a set of immature cognitive patterns by which they interpret the world and make decisions. They react impulsively, rather than think about consequences. They plan poorly and fail to follow through on commitments. They rely on generalization and intuition to the neglect of analysis and reflection. They have a rigidly stratified view of other people as allies, enemies, or victims to be exploited, and yet these perceptions can change abruptly. They externalize blame and self-justify their actions.

Egocentrism. It's all about me, me, me, and what I can do—and what others are supposed to do—to make me feel good about myself. Criminals assume the world is supposed to revolve around them. They consider themselves special and entitled. They avoid any activity at which they cannot excel quickly and easily. They assume people are always talking about them, and this may acquire a paranoid quality, impelling them to retaliate for perceived slights and confrontations.

Implicit Theories and Criminal Cognitive Schemata

As we have seen, some theorists attribute criminal behavior to blind, irrational psychodynamic forces, others highlight the contingently reinforcing effect of social rewards and punishments, and still others focus on how criminals actually think about their choices and behaviors, how they make the decision to commit crimes or not. In one view, we all harbor our own idiosyncratic implicit theories (Polaschek, Calvert, & Gannon, 2009; Polaschek & Collie, 2004) about our lives and the world we live in. Implicit theories are composed of structured interconnected networks of beliefs, organized around a dominant theme or narrative that explains how the world works. An implicit theory provides an explanatory scaffolding to our identity, by which we justify our own actions and explain the actions of others. As guardians of identity (Staub, 2003), implicit theories are extremely resistant to revision and we naturally come to skew our interpretations of events in the direction of our implicit theories, which explains why ingrained beliefs and behaviors are so hard to change. Influenced by a combination of our genetic heritage, family upbringing, and experiences within our communities, our implicit theories may be cynical and malevolent or benign and accepting. Law-abiding citizens have their implicit theories and criminals have theirs. In this view, implicit theories typically express themselves in a series of *cognitive schemata* by which we recurrently interpret and direct our behavior in given situations.

Polaschek et al. (2009) describe five types of cognitive schemata that they have identified in their study of violent prisoners:

Beat or be beaten. If you do not make the first move to establish your dominant status, then others will take you for a punk. Usually this means that, on the slightest pretext of challenge or confrontation, the subject had better beat down his opponent decisively so there's no mistake about who's on top. Of course, this means that inevitably, the defeated party will be obliged to retaliate in order to reaffirm his own status in the power cycle. *Self-enhancement*. Far from being seen as a threat or a burden, many of the violent prisoners in this study welcomed aggressive challenges precisely for the opportunities they provided to display their prowess and dominance. In this way, these men are constantly enhancing their own power image, and if sufficient challenges are not forthcoming, they may actively seek out confrontations to keep their power affirmations from getting stale. Since defeat or capitulation in any form is unthinkable, even a single such lapse will impel the burning urge for retaliation and reassertion of dominance, so essentially, the person is never finished fighting.

Self-preservation. Some of these men justify their "badass" reputations and behavior by convincing themselves that they have no choice: the world they live in is a cold, mean, predatory place and it is eat or be eaten. In some settings, such as a prison community or gang-ridden neighborhood, this may not be far from the truth. Sometimes, however, this paranoid attitude may generalize to people who might otherwise be considered harmless or even friendly, such as family members or romantic partners.

I am the law. Another kind of self-justification relates to a sense of inflated self-importance in which many of these men feel morally superior and entitled, even obligated, to "discipline" others when they believe the situation calls for it, all presumably in the service of keeping order or protecting those things and people important to them, thus elevating their violent activities to a noble purpose. Naturally, they expect the recipients of their one-man toughlove peacekeeping patrol to be grateful and, when the thank-you's fail to materialize, these erstwhile protectors may turn on their reluctant charges and punish them for their ingratitude and betrayal.

I get out of control. Heightening their sense of unpredictable and uncontrollable dangerousness, these men revel in their reputations as loose cannons or "crazy motherf—rs" because it imparts a force-of-nature invincibility to their reputations. It also provides an excuse for the overkill response that many of these men show in their rageful attacks: "If he didn't want his head beat in, he shouldn't have messed with me—every-

body knows that once I get going, I can't stop till it's over." Interestingly, loss of control is rarely attributed to the effects of drugs or alcohol, which would impart an outside cause to the mental brake failure and thereby dilute its dangerously unpredictable impact: after all, if I'm only a potential monster when I'm drunk or high, does that mean you can mess with me when I'm straight? In fact, many of these men pride themselves in being able to "hold my juice" without getting overwhelmed by substance effects, and have utter contempt for those who become careless and sloppy when intoxicated or who let their lives be controlled by addiction.

Commonalities in Criminal Thinking Typologies

Across the numerous typologies reviewed above, certain consistencies about the "criminal mind" seem to emerge. The habitual criminal is egocentric and narcissistic, and sees everything and everyone in terms of how they can benefit him. He is extremely invested in status, dominance, and power, and pursues these through a combination of cunning manipulation and explosive combativeness. He is rigid and inflexible in his thinking and sees everything from a me-versus-them perspective. He accepts little responsibility for his actions and justifies everything he does in an inconsistent and self-serving way. He eschews sentimentality, but may become agitated and depressed when he fails to get what he wants. His relationships are characterized by mistrust, hostility, exploitation, shallow emotionality, and instability. He lives in cold, cruel world, partly of his own making because he acts coldly and cruelly toward others, and partly because he surrounds himself with others like himself who mutually reinforce one another's adversarial worldview.

Evolutionary Criminal Psychology

If certain people habitually act like animals, is it too far a leap to suppose that they may really *be* like animals? It was the Italian physician Cesare Lombroso (1876, 1889) who first articulated the theory of atavism to explain the evolutionary basis of criminal behavior. Informed by the justpublished works of Charles Darwin (1859, 1871), Lombroso regarded violent criminals as atavisms, throwbacks to earlier developmental human forms, some of whose members managed to elude extinction and now loped recklessly among us (Bernard, Snipes, & Gerould, 2010; Flowers, 2002). This conceptualization conveniently affirmed the separation maintained in the minds of polite European Victorian society between the more refined (and, according to the theory, therefore more evolved) social aristocracy and the brutish "lower classes," many of whom could now be viewed as essentially cavemen in modern clothing (the first Neanderthal skull was unearthed in 1856, coincidently, the year Sigmund Freud was born), whose feral natures were evidenced by their lust for mayhem. Lombroso even opined that these atavistic criminals could be identified by distinct physical characteristics, such as stooped stance, ambling gait, disproportionate limb length, sloping cranial shape, and "beetling brows."

Over a century of research and theory in anthropology, psychology, criminology, and evolutionary theory has resulted in a more refined model of *evolutionary psychology* (Buss, 2004; Gaulin & McBurney, 2003), which seeks to apply the principles of Darwinian evolution by natural selection to complex human behavioral traits and behaviors, including criminal behavior (Duntley & Buss, 2008; Duntley & Shackelford, 2008; Walsh & Beaver, 2008).

Principles of Evolutionary Psychology

In Darwinian evolutionary theory (Darwin, 1859, 1871, 1872), all traits—physical or behavioral survive within a population of organisms if they have individual or collective survival value with regard to the surrounding physical and social environments. Summarizing a vast literature (Buss, 2004; Cochran & Harpending, 2009; Duntley & Shackelford, 2008; Shackelford & Duntley, 2008; Walsh & Beaver, 2008), we can boil down the major principles of evolutionary psychology as they apply to normal and abnormal, criminal and noncriminal, behavior (for a comprehensive review, see Miller, 2012):

Many organisms, including humans, are social organisms. Living creatures of many kinds, including humans, have evolved to live in interdependent social groups that increase the probability of species survival and perpetuation.

Successful group living involves a balance of cooperation and competition. Group living typically involves a complex combination of selfinterest and communal cooperation, so humans had to evolve traits of compromise and dealmaking, along with those of deceit and self-interest.

Males and females have different reproductive strategies. Generally, males seek to maximize the dissemination of their DNA by coupling with as many females as possible, while women strive to pick someone with the strength and status to be a good provider, while at the same time, being as sure as possible of his fidelity.

Sex and aggression are powerful motivating forces in human societies. Here, Darwin could easily agree with Freud or Adler. Males compete for the most attractive and reproductively fit females, which women vie for physically powerful and high-status males. Social hierarchies give the group a certain day-to-day stability, but the order may be periodically challenged by rivals.

"Survival of the fittest" applies to groups as well as individuals. For close-knit communal species like humans, inclusive fitness refers to the fact that individual members of a given clan or group will likely be bonded by varying degrees of genetic relationship: mothers and fathers, sisters and brothers, aunts, uncles, cousins, and so forth. So extending oneself, even risking one's life, for the safety and welfare of the group carries the probability that, among the saved, there will be some genetic relatives of the volunteer. Even when the bond is not genetic, but merely social, a second evolutionary behavioral principal, reciprocal altruism, means that if you help me now, I will help you later. Group cohesion and reciprocal altruism are thus powerful forces for mutual survival and perpetuation of social organisms,

which probably accounts for our modern concepts of social fairness and communal ethical obligation.

Diversity contributes to overall group fitness. We all know that people are different and not everybody can do everything. In humans, cognitive, personality, and behavioral diversity contribute to overall inclusive fitness by providing a range of talents for natural selection to operate on, thus giving a psychologically diverse group more flexibility in meeting a wider range environmental challenges.

Why Have Psychopathology and Criminal Behavior Not Been Selected Out?

Some personality and behavioral traits, especially those that shade over into what we today call psychopathology or mental illness, may seem too extreme to have any appreciable adaptive value. For example, traits like severe aggressiveness and selfishness, not to mention psychosis and depression, would seem to be woefully maladaptive in most social groups and lead to ostracism, diminished mating opportunities, and the eventual extinction of these traits in the human population. Yet they persist, generation after generation, in small segments of almost any society. Why? Because most such traits and characteristics are not all-or-nothing entities; instead, within a given genetic family line, traits are expressed in greater or lesser degrees of intensity across different family members, and traits that are an adaptive liability in their extreme form may be a survival asset in more moderate doses.

Thus, one family member may be delusional, while some of his relatives are simply creative inventors or imaginative storytellers. Another group member may be destructively impulsive and violent, getting into fights with fellow tribemates, while his brother and cousins are fearless and bold, and make good soldiers and defenders of the group, as long as they keep their hands to themselves when at home. Since carriers of the more mild–moderate versions of the trait may occasionally have offspring in which the trait is abnormally concentrated, the severely afflicted

How Evolutionary Psychology Made a Monkey Out of a Professor

In February 1992, psychiatrist Frederick Goodwin, director the US Alcohol, Drug Abuse, and Mental Health Administration, was addressing a meeting of the Mental Health Advisory Council convened to study the issue of violence, especially urban youth violence, as a public health concern. Seeking to place the problem in a broader evolutionary context, Dr. Goodwin drew an analogy between the behavior of male monkeys in the wild and violent young men in rough city neighborhoods. It was no coincidence, he said, that certain inner city areas are referred to as urban "jungles," because "the loss of social structure in this society has removed some of the civilizing evolutionary things that we have built up."

For example, Goodwin noted, only about half of male monkeys in the wild survive to adulthood, the remainder eliminated by their hyperaggressive and hypersexual rivals. An equivalent phenomenon, Goodwin seemed to suggest, existed in modern urban ghettos, wherein dwell a large proportion of disadvantaged minority citizens. Perhaps by studying the biobehavioral commonalities between ourselves and our primate cousins, the doctor mused, we might develop the tools to combat inner-city violence. Laudable enough, right?

"U.S. Government Scientist Compares Poor Minorities to Monkeys!" screamed the headlines, coast to coast. Of course, that wasn't what Dr. Goodwin was saying, just as readers of this chapter understand that phylogenetic behavioral continuity across species does not mean that we actually are those species. But the story was too good for the media-and Dr. Goodwin's criticsto pass up. Political activists with axes to grind pressed the case against Dr. Goodwin for incorrigible racism, and he was forced to resign his position from an organization that, remember, was supposed to be dedicated to the dispassionate scientific study of human behavior (Miller, 2012).

offspring need not mate himself or herself, as long as his less-affected siblings or cousins do, in order to assure a small but steady supply of such individuals in any particular population. The extreme forms of the trait are the societal "side effects" of the more moderate and adaptive forms, and that's why a few of each will always be with us.

Evolutionary Psychology of Crime and Violence

Criminal behavior may seem like a form of extreme maladaptive behavior, but in certain contexts, it can be a highly efficient survival and reproductive strategy. Egocentric, aggressive, and remorseless individuals who are resource poachers and reproductive cheaters sacrifice a certain degree of solidarity and support from their communities and may risk censure, punishment, banishment, or execution for their actions. However, enough of them will survive by their cunning and intimidation long enough to disseminate their DNA and thus ensure the persistence of a small, but perniciously energetic subset of the breeding population. Indeed, all the things that most of us consider fun in moderation-"sex, drugs, and rock and roll"-are in some respect connected with reproductive fitness, e.g., getting a pumped-up high to dance all night and ultimately score for the evening. But for the hard core criminal cheater, these are not occasional recreations, they are his whole lifestyle. And, since he and his ilk devote so much extra time and effort to filching, fighting, and fornicating, at least some of them are likely to survive on the backs of ordinary solid citizens, at least long enough to leave copies of themselves behind to perpetuate the cycle (Miller, 2012, 2014c).

Evolutionary psychology has even been applied to what is arguably the most serious crime in most societies, homicide. According to *homicide adaptation theory* (Buss & Duntley, 2003, 2004; Duntley & Buss, 2008), the wanton killings of some individuals by others within a small interdependent tribal clan would have had a devastatingly destabilizing effect on group cohesion and, therefore, on the survival of a widening circle of group members. Rival families would become embroiled in a vicious cycle of destructive blood feuds. Hunting, foraging, and toolmaking would grind to a halt, and fractured group cohesion would make the clan more vulnerable to hostile groups, while fewer resources would be available to raise offspring. Powerful social forces, then, would have evolved to discourage frequent lethal combat within a clan, since groups that permitted such destructive free-for-alls were less likely to survive and pass on their genes.

Therefore, the theory argues, the rare circumstances in which killing a member of your own clan, tribe, village, or community would be evolutionarily advantageous would have to be where the benefits of killing a neighbor or even a family member clearly outweighed the attendant risks of censure, ostracism, or lethal revenge. According to the theory, these circumstances would include the following.

Defensive or preemptive strike: homicide to stop or prevent the killing, rape, injury, or exploitation of self, kin, mates, or coalitional allies, either now or in the future. Premeditated murder depends on the ability to plan ahead, which is a cognitive skill most highly developed in humans, but also seen more rudimentarily in many predatory species who stalk and hunt for a living.

Resource protection: killing to preserve the essential survival and procreative resources of food, clothing, tools, weapons, shelter, and mates from being robbed or pilfered by another group member. Naturally, this would be expected to vary according to the relative abundance or scarcity of such resources at any given time.

Reputation management: killing to prevent having to continuously fend off rivals by "making an example" of one or two prominent adversaries to establish your dominance status. Even today, homicide-related reputational enhancement—and with it, higher social status and greater mating opportunities—are seen in groups as diverse as the forest-dwelling Yanomamo of Venezuela (Chagnon, 1988) and the urbandwelling gang members of New York and Los Angeles (Alvarez & Bachman, 2002; Ghiglieri, 1999; Vigil, 2003).

Reproductive Primacy

Stepchildren would have been at increased risk of neglect, abuse, and murder by any new male mate of their mother, since this man would have had a genetic investment in maximizing the survival success of his own offspring, not some other man's. In good times, these stepchildren may have been tolerated or even welcomed as members of the male's new extended family, but in leaner times, they may well have been seen as expendable burdens. Even in modern societies, stepchildren are still at heightened risk for abuse and homicide (Miller, 2012).

Quality Control

In the grim calculus of ancestral human survival, preservation of your family or the group as a whole, especially in tough times, may have depended on eliminating "dead weight," i.e., group members who could not or would not fend for themselves or contribute to the group's living activities. This might include genetically impaired children, infirm elderly members, or disabled adults. As in preindustrial societies today, ancestral humans probably did not make these decisions lightly, and these sacrificial homicides would not likely be regarded as murder, unless there was some intragroup political dispute over who should go and who gets to stay.

Duntley and Buss (2008) cite numerous examples of similar homicidal and infanticidal behavior across diverse species of social animals, including lions, wolves, hyenas, cougars, cheetahs, monkeys, chimpanzees, and gorillas (Crockett & Sekulic, 1984; Fossey, 1984; Ghiglieri, 1999; Wrangham & Peterson, 1996). In most of these species, infanticide of another male's offspring to induce estrus and sexual receptivity in the female is the primary motive, with intraspecific aggression between males typically being limited to ritualized combat displays involving nonlethal injury. Primates, however, especially chimpanzees, the hominoid apes most closely related to us genetically, have been observed to form coalitions to attack, murder, and often cannibalize rival group members or even unpopular members of their own group.

Applied to modern criminal law, homicide adaptation theory-and evolutionary psychology generally-may provide some insight into why human societies divide homicides into a variety of legal categories, such as first and second degree murder, manslaughter, and so on, each carrying a different weight of culpability and blameworthiness. According to the present theory, for a murder to be accepted without severe consequences within a small interdependent community, it had better have occurred for a legitimate or understandable reason. Killing another person to obtain more resources when you already had enough would likely not be tolerated in almost any society. Even when some justification could be found for your actions, such as clubbing a man to death upon discovering him in your cave with your mate (resulting, perhaps, in your killing her, too), this might be viewed more leniently when occurring as a "crime of passion" than where you plan, stalk, lie in wait, ambush, and kill your rival, i.e., murder in the first degree.

Nevertheless, like all theories, homicide adaptation theory and others which appeal to evolutionary psychology still must explain why some members of a group are more susceptible than others to aggression and homicide as an adaptational strategy. After all, there must be a reason why diversity of human personality has persisted in the human race, indeed, in most social creatures, or we would all have long ago become the same—or extinct.

Summary and Conclusions

Psychological models of crime should be seen as complementary to, not competitive with, the biological and sociological explanations discussed in other chapters of this book. Psychodynamic theories of crime view deviant behavior as an expression of unresolved unconscious conflicts that drive antisocial acting-out through a series of defense mechanisms. Behavioral and social learning theories attribute all behavior, including antisocial behavior, to differential learning experiences that occur in varied environments. Historically early theories of crime focused on the identification of a set of "criminal types," while more recent conceptualizations focus on temperamental and cognitive features of habitual criminals, such as levels of self-control and criminal thinking styles. The emergent psychological profile of the prototypical habitual criminal includes common traits of impulsivity, immaturity, narcissism, paranoia, sensation seeking, low self-control, and power orientation. These appear to reflect admixtures of biological predisposition (nature), environmental reinforcement (nurture), and self-selection (differential association/gene– environment correlation).

Finally, evolutionary psychology attempts perhaps the broadest integration of human criminality into the realm of normative adaptive behavior of people in the past and present, and, indeed, within the natural world as a whole. Individuals with extreme maladaptive traits may have relatives with lesser degrees of those traits that confer adaptive advantages for survival and selfperpetuation. Resource exploiters and reproductive cheaters (i.e., criminals) may be punished or banished when caught, but enough of them manage to get away with it so there will always be a subset of these scalawags in our gene pool. We still await the felony case where defense counsel endeavors to creatively utilize evolutionary theory as an exculpatory factor: "Darwin made me do it." Overall, modern psychological theories attempt to integrate finding from diverse fields, such as biology, psychology, sociology, economics, and criminology, working toward a kind of "unified field theory" of criminal psychology and of human behavior in general.

References

- Abrahamsen, D. (1952). *Who are the guilty?* New York, NY: Rinehart & Co..
- Adler, A. (1912/2009). The neurotic constitution: Outlines of a comparative individualistic psychology and psychotherapy. Ithaca, NY: Cornell University Library.
- Adler, A. (1926/2011). *The practice and theory of individual psychology*. Eastford, CT: Martino.
- Alvarez, A., & Bachman, R. (2002). Murder American style. Belmont, CA: Wadsworth.

- Arneklev, B. J., Grasmick, H. G., & Bursick, R. J. (1999). Evaluating the dimensionality and invariance of "low self-control". *Journal of Quantitative Criminology*, 15, 307–331.
- Bandura, A. (1973). Aggression: A social learning analysis. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice-Hall.
- Bernard, T. J., Snipes, J. B., & Gerould, A. L. (2010). Vold's theoretical criminology (6th ed.). New York: Oxford University Press.
- Blair, J., Mitchell, D., & Blair, K. (2005). *The psychopath: Emotion and the brain*. Malden, MA: Blackwell.
- Britt, C. L., & Gottfredson, M. R. (2003). Advances in criminological theory: Control theories of crime and delinquency. New Brunswick, NJ: Transaction Press.
- Buss, D. M. (2004). Evolutionary psychology: The new science of the mind (2nd ed.). New York: Allyn & Bacon.
- Buss, D. M., & Duntley, J. D. (2003). Homicide: An evolutionary perspective and implications for public policy. In N. Dess (Ed.), *Violence and public policy* (pp. 233–257). Westport, CT: Greenwood.
- Buss, D. M., & Duntley, J. D. (2004). The evolution of gender differences in aggression. In S. Fein (Ed.), *Gender and aggression* (pp. 66–84). New York: Guilford.
- Chagnon, N. (1988). Life histories, blood revenge, and warfare in a tribal population. *Science*, 239, 985–992.
- Cochran, G., & Harpending, H. (2009). The 10,000 year explosion: How civilization accelerated human evolution. New York, NY: Basic Books.
- Cretacci, M. A. (2008). A general test of self-control theory: Has its importance been exaggerated? *International Journal of Offender Therapy and Comparative Criminology*, 52, 538–553.
- Crockett, C. M., & Sekulic, R. (1984). Infanticide in red howler monkeys. In G. Hausfater & S. B. Hrdy (Eds.), *Infanticide: Comparative and evolutionary perspectives* (pp. 173–192). New York, NY: Adline.
- Darwin, C. (1859). On the origin of species by means of natural selection, or the preservation of favoured races in the struggle for life. London: John Murray.
- Darwin, C. (1871). *The descent of man in relation to sex.* London: John Murray.
- Darwin, C. (1872). *The expression of the emotions in man and animals*. London: John Murray.
- DeLisi, M., Hochstetler, A., & Murphy, D. S. (2003). Self-control behind bars: A validation study of the Grasmick scale. *Justice Quarterly*, 20, 241–263.
- Duntley, J. D., & Buss, D. M. (2008). The origins of homicide. In J. D. Duntley & T. K. Shackelford (Eds.), *Evolutionary forensic psychiatry: Darwinian foundations of crime and law* (pp. 41–64). New York: Oxford University Press.
- Duntley, J. D., & Shackelford, T. K. (2008). Victim adaptations. In J. D. Duntley & T. K. Shackelford (Eds.), Evolutionary forensic psychiatry: Darwinian foundations of crime and law (pp. 201–229). New York: Oxford University Press.

- Ellenberger, H. F. (1970). *The discovery of the unconscious: The history and evolution of dynamic psychia try*. New York: Basic Books.
- Ellis, H. (1907). The criminal: The contemporary science series (3rd ed.). London: Walter Scott Publishing Company/Charles Scribner.
- Evans, T. D., Cullen, F. T., Burton, V. S., Dunaway, R. G., & Benson, M. L. (1997). The social consequences of self-control: Testing the general theory of crime. *Criminology*, 35, 475–504.
- Flowers, B. R. (2002). Murder at the end of the day and night: A study of criminal homicide offenders, victims, and circumstances. Springfield, IL: Charles C Thomas.
- Fossey, D. (1984). *Gorillas in the mist*. Boston, MA: Houghton Mifflin.
- Freud, S. (1915/1957). The unconscious. In J. Strachey (Ed. & Transl.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 12, pp. 161–215). London: Hogarth Press.
- Freud, S. (1923/1960). *The ego and the id*. New York, NY: Norton.
- Freud, S. (1930/1961). Civilization and its discontents. In J. Strachey (Ed. & Transl.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 21, pp. 57–145). London: Hogarth Press.
- Freud, S. (1933/1964). New introductory lectures on psycho-analysis. In J. Strachey (Ed. & Transl.), *The* standard edition of the complete psychological works of Sigmund Freud (Vol. 22, pp. 1–182). London: Hogarth Press.
- Freud, A. (1948). *The ego and the mechanisms of defense*. London: Hogarth Press.
- Gardner, R. W., Holzman, P. S., Klein, G. S., Linton, H. B., & Spence, D. P. (1959). Cognitive control: A study of individual consistencies in cognitive behavior. *Psychological Issues*, 1, 1–185.
- Gaulin, S. J. C., & McBurney, D. H. (2003). Evolutionary psychology (2nd ed.). New York: Pearson.
- Ghiglieri, M. P. (1999). The dark side of man: Tracing the origins of violence. Reading, MA: Perseus Books.
- Gibson, C., & Wright, J. (2001). Low self-control and coworker delinquency: A research note. *Journal of Criminal Justice*, 29, 483–492.
- Glenn, A. L., & Raine, A. (2008). The neurobiology of psychopathy. *Psychiatric Clinics of North America*, 31, 463–475.
- Gottfredson, M. R., & Hirschi, T. (1990). A general theory of crime. Stanford, CA: Stanford University Press.
- Graham, S., & Hudley, C. (1994). Attributions of aggressive and nonaggressive African-American male early adolescents: A study of construct accessibility. *Developmental Psychology*, 30, 365–373.
- Guttmacher, M. S. (1972). The psychiatric approach to crime and correction. In D. Dressler (Ed.), *Readings* in criminology and penology (pp. 294–300). Glencoe, IL: Free Press.
- Hartmann, H. (1939/1958). Ego psychology and the problem of adaptation. New York, NY: International Universities Press.

- Higgins, G. E. (2004). Gender and self-control theory: Are there differences in the measures and the theory's causal model? *Criminal Justice Studies*, *17*, 33–55.
- Kernberg, O. F. (1976). Object relations theory and clinical psychoanalysis. New York, NY: Jason Aronson.
- Klein, G. S. (1958). Cognitive control and motivation. In G. Lindzey (Ed.), Assessment of human motives (pp. 58–82). New York, NY: Rinehart.
- Lombroso, C. (1876). L'uomo delinquente. Milan, Italy: Hoepli.
- Lombroso, C. (1889). *L'uomo delinquente* (4th ed.). Torino, Italy: Bocca.
- Longshore, D., Chang, E., Hsieh, S. C., & Messina, N. (2004). Self-control and social bonds: A combined control perspective on deviance. *Crime and Delinquency*, 50, 542–564.
- Lykken, D. T. (1995). *The antisocial personalities*. Hillsdale, NJ: Erlbaum.
- Lykken, D. T. (2000). The causes and costs of crime and a controversial cure. *Journal of Personality*, 68, 559–605.
- Mandracchia, J. T., Morgan, R. D., Garos, S., & Garland, J. T. (2007). Inmate thinking patterns: An empirical investigation. *Criminal Justice and Behavior*, 34, 1029–1043.
- Matsuenda, R. L. (1988). The current state of differential association theory. *Crime and Delinquency*, 34, 277–306.
- Matthews, B. A., & Norris, F. H. (2002). When is believing "seeing"? Hostile attribution bias as a function of self-reported aggression. *Journal of Applied Social Psychology*, 32, 1–32.
- Menninger, K. A. (1938). *Man against himself*. New York, NY: Harcourt Brace.
- Menninger, W. W. (2007). Uncontained rage: A psychoanalytic perspective on violence. Bulletin of the Menninger Clinic, 71, 115–131.
- Menninger, K. A., Mayman, M., & Pruyser, P. (1963). The vital balance: The life process in mental health and illness. New York, NY: Viking.
- Miller, L. (1987). Neuropsychology of the aggressive psychopath: An integrative review. *Aggressive Behavior*, 13, 119–140.
- Miller, L. (1988). Ego autonomy, creativity, and cognitive style: A neuropsychodynamic approach. In K. D. Hoppe (Ed.), *Hemispheric specialization* (pp. 383– 397). Philadelphia, PA: Saunders.
- Miller, L. (1989). Neurocognitive aspects of remorse: Impulsivity-compulsivity-reflectivity. In E. M. Stern (Ed.), *Psychotherapy and the remorseful patient* (pp. 63–76). New York, NY: Haworth.
- Miller, L. (1990). Inner natures: Brain, self, and personality. New York, NY: St. Martin's Press.
- Miller, L. (1991a). Brain and self: Toward a neuropsychodynamic model of ego autonomy and personality. *Journal of the American Academy of Psychoanalysis*, 19, 213–234.
- Miller, L. (1991b). Freud's brain: Neuropsychodynamic foundations of psychoanalysis. New York, NY: Guilford.

- Miller, L. (1992). The primitive personality and the organic personality: A neuropsychodynamic model for evaluation and treatment. *Psychoanalytic Psychology*, *9*, 93–109.
- Miller, L. (1998). Brain injury and violent crime: Clinical, neuropsychological, and forensic considerations. *Journal of Cognitive Rehabilitation*, 16, 2–17.
- Miller, L. (2000). The predator's brain: Neuropsychodynamics of serial killers. In L. B. Schlesinger (Ed.), Serial offenders: Current thought, recent findings, unusual syndromes (pp. 135–166). Boca Raton, FL: CRC Press.
- Miller, L. (2012). Criminal psychology: Nature, nurture, culture. Springfield, IL: Charles C Thomas.
- Miller, L. (2013). Psychological evaluations in the criminal justice system: Basic principles and best practices. *Aggression and Violent Behavior: A Review Journal*, 18, 83–91.
- Miller, L. (2014a). Serial killers: I. Subtypes, patterns, and motives. Aggression and Violent Behavior: A Review Journal, 19, 1–11.
- Miller, L. (2014b). Serial killers: II. Development, dynamics, and forensics. Aggression and Violent Behavior: A Review Journal, 19, 12–22.
- Miller, L. (2014c). Rape: Sex crime, act of violence, or naturalistic adaptation? Aggression and Violent Behavior: A Review Journal, 19, 67–81.
- Nasby, W., Hayden, B., & DePaulo, B. M. (1980). Attributional bias among aggressive boys to interpret unambiguous social stimuli as displays of hostility. *Journal of Abnormal Psychology*, 89, 459–468.
- Palermo, G. B. (2009). Antisocial behaviors and personality disorders. In R. N. Kocsis (Ed.), *Applied criminal psychology: A guide to forensic behavioral sciences* (pp. 21–43). Springfield, IL: Charles C Thomas.
- Palermo, G. B., & Kocsis, R. N. (2005). Offender profiling: An introduction to the sociopsychological analysis of violent crime. Springfield, IL: Charles C Thomas.
- Paternoster, R., & Brame, R. (2000). On the association among self-control, crime, and analogous behaviors. *Criminology*, 38, 971–982.
- Pavlov, I. P. (1927). Conditioned reflexes: An investigation of the physiological activity of the cerebral cortex. New York, NY: Oxford University Press.
- Piquero, A. R., MacDonald, J., Dobrin, A., Daigle, L. E., & Cullen, F. T. (2005). Self-control, violent offending, and homicide victimization: Assessing the general theory of crime. *Journal of Quantitative Criminology*, 21, 55–71.
- Polaschek, D. L. L., Calvert, S. W., & Gannon, T. A. (2009). Linking violent thinking: Implicit theorybased research with violent offenders. *Journal of Interpersonal Violence*, 24, 75–96.
- Polaschek, D. L. L., & Collie, R. M. (2004). Rehabilitating serious violent adult offenders: An empirical and theoretical stocktake. *Psychology Crime and Law*, 10, 321–333.
- Pratt, T. C., & Cullen, F. T. (2000). The empirical status of Gottfredson and Hirschi's general theory of crime: A meta-analysis. *Criminology*, 38, 931–964.

- Quiggle, N. L., Garber, J., Panak, W. F., & Dodge, K. A. (1992). Social information processing in aggressive and depressed children. *Child Development*, 63, 1305–1320.
- Raine, A., Meloy, J. R., Bihrle, S., Stoddard, J., & La Casse, L. (1998). Reduced prefrontal and increased subcortical brain functioning assessed using positron emission tomography in predatory and affective murderers. *Behavioral Sciences and the Law*, 16, 319–332.
- Samenow, S. E. (1984). Inside the criminal mind. New York, NY: Times Books.
- Samenow, S. E. (2002). Straight talk about criminals: Understanding and treating antisocial individuals. New York, NY: Jason Aronson.
- Samenow, S. E. (2007). The myth of the out-of-character crime. Westport, CT: Praeger.
- Schultz, S. (2004). Problems with the versatility construct of Gottfredson and Hirschi's general theory of crime. *European Journal of Crime, Criminal Law and Criminal Justice*, 12, 61–82.
- Shackelford, T. K., & Duntley, J. D. (2008). Evolutionary forensic psychology. In J. D. Duntley & T. K. Shackelford (Eds.), *Evolutionary forensic psychiatry: Darwinian foundations of crime and law* (pp. 3–19). New York, NY: Oxford University Press.
- Shapiro, D. (1965). Neurotic styles. New York, NY: Basic Books.
- Silver, E. (2000). Extending social disorganization theory: A multilevel approach to the study of violence among persons with mental illnesses. *Criminology*, 38, 1043–1074.
- Silver, E. (2006). Understanding the relationship between mental disorder and violence: The need for a criminological perspective. *Law and Human Behavior*, 30, 685–706.
- Silver, E., Mulvey, E., & Swanson, F. (2002). Neighborhood structural characteristics and mental disorder: Faris and Dunham revisited. *Social Science* and Medicine, 55, 1457–1470.
- Skinner, B. F. (1938). The behavior of organisms: An experimental analysis. Oxford, UK: Appleton-Century.
- Skinner, B. F. (1948). Walden two. New York, NY: Macmillan.
- Skinner, B. F. (1953). Science and human behavior. New York, NY: Macmillan.
- Skinner, B. F. (1974). About behaviorism. New York, NY: Knopf.
- Staub, E. (2003). The psychology of good and evil: Why children, adults and groups help and harm others. New York, NY: Cambridge University Press.
- Stewart, E. A., Elifson, K. W., & Sterk, C. E. (2004). Integrating the general theory of crime into an explanation of violent victimization among female offenders. *Justice Quarterly*, 21, 159–181.
- Sutherland, E. H. (1929). The person versus the act in criminology. *Cornell Law Quarterly*, 14, 159–167.
- Sutherland, E. H. (1932). Social process in behavior problems. Publications of the American Sociological Society, 26, 55–61.
- Thorndike, E. (1932). *The fundamentals of learning*. New York, NY: AMS Press.

- Tiedens, L. Z. (2001). The effect of anger on the hostile inferences of aggressive and nonaggressive people: Specific emotions, cognitive processing, and chronic accessibility. *Motivation and Emotion*, 25, 233–251.
- Toch, H. H. (1992). Violent men: An inquiry into the psychology of violence. (2nd ed.). Washington, DC: American Psychological Association.
- Unnever, J. D., Cullen, F. T., & Pratt, T. C. (2003). Parental management, ADHD, and delinquent involvement: Reassessing Gottfredson and Hirschi's general theory. *Justice Quarterly*, 20, 471–500.
- Vigil, J. D. (2003). Urban violence and street gangs. Annual Review of Anthropology, 32, 225–242.
- Walsh, A., & Beaver, K. M. (2008). The promise of evolutionary psychology in criminology: The examples of gender and age. In J. D. Duntley & T. K. Shackelford (Eds.), *Evolutionary forensic psychiatry: Darwinian foundations of crime and law* (pp. 20–37). New York, NY: Oxford University Press.
- Walters, G. D. (1990). The criminal lifestyle: Patterns of serious criminal conduct. Newbury Park, CA: Sage.
- Walters, G. D. (2002). The Psychological Inventory of Criminal Thinking Styles (PICTS): A review and meta-analysis. Assessment, 9, 278–291.

- Watson, J. B. (1925). *Behaviorism*. New York, NY: Norton.
- Wellman, H. M. (1990). The child's theory of the mind. Cambridge, MA: MIT Press.
- Wiebe, R. P. (2003). Reconciling psychopathy and low self-control. *Justice Quarterly*, 20, 297–336.
- Wilson, J. Q., & Herrnstein, R. J. (1985). Crime and human nature: The definitive study of the causes of crime. New York, NY: Simon and Schuster.
- Winfree, L. T., Taylor, T. J., He, N., & Esbensen, F. (2006). Self-control and variability over time: Multivariate results using a 5-year, multisite panel of youths. *Crime* and Delinquency, 52, 253–286.
- Wrangham, R., & Peterson, D. (1996). *Demonic males*. Boston, MA: Houghton Mifflin.
- Yochelson, S., & Samenow, S. E. (1976). The criminal personality, A profile for change (Vol. Vol. 1). New York, NY: Jason Aronson.
- Yochelson, S., & Samenow, S. E. (1977). The criminal personality, The change process (Vol. Vol. 2). New York, NY: Jason Aronson.
- Zelli, A., Huesman, L. R., & Cervone, D. (1995). Social inference and individual differences in aggression: Evidence for spontaneous judgments of hostility. *Aggressive Behavior*, 21, 405–417.