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# Psychopathy is the Unified Theory of Crime

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Psychopathy is an important clinical construct that has been studied for more than 200 years and has exploded in recent years as a guiding explanatory concept for a range of antisocial behaviors across a range of populations and subgroups. In this review essay, I advance that psychopathy is the purest and the best explanation of antisocial behavior. Indeed, psychopathy is the unified theory of crime because it mirrors the elemental nature and embodies the pejorative essence of antisocial behavior, accommodates dimensional and categorical conceptualizations and examinations of antisocial behavior, facilitates the study of antisocial phenotypes over the life span, accommodates the general overlap of antisocial behaviors among diverse populations, and facilitates emerging biosocial explanations of antisocial behavior.

**Keywords:** *psychopathy; psychopathic personality; offender; crime; criminological theory; delinquency*

There is a synergy between the violent criminals' personality traits, lifestyle, and observed behavior that dovetails so exquisitely that it is as if their criminality is wrapped up in a box. That box is psychopathy.

(DeLisi & Vaughn, 2008, p. 164)

There are many theoretical explanations for antisocial behavior. Some are general and purport to explain everything whereas others are narrow and specifically focus on particular types of behavior. Some theories are tailored to explaining delinquency and crime based on offense type, gender or race of the perpetrator, or geographic region where the behavior occurred. Some theories are sociological, others are psychological, others are biological, and still others use constructs from multiple disciplines. Some theories target behaviors occurring in childhood, most focus on problem behaviors occurring in adolescence, and still others focus on criminal behaviors among adults. In the scientific literature, some theories have commanded great empirical attention whereas others are rarely tested. Some theories are convoluted, naïve, or academic exercises whereas others brilliantly capture the essence of antisocial behavior.

Of all the theories emanating from the social, behavioral, and criminological sciences, psychopathy is superior to its competitors. Here I argue that psychopathy is the unified theory of delinquency and crime and the purest explanation of antisocial behavior.

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Psychopathy mirrors the elemental nature and embodies the pejorative essence of antisocial behavior, accommodates dimensional and categorical conceptualizations and examinations of antisocial behavior, facilitates the study of antisocial phenotypes over the life span, accommodates the general overlap of antisocial behaviors among diverse populations, and facilitates emerging biosocial explanations of antisocial behavior.

### **Psychopathy Mirrors the Elemental Nature and Embodies the Pejorative Essence of Antisocial Behavior**

Psychopathy is a clinical construct usually referred to as a personality disorder defined by a constellation of interpersonal, affective, lifestyle, and behavioral characteristics that manifest in wide-ranging antisocial behaviors (Cleckley, 1941; Hare & Neumann, 2008). On the interpersonal dimension, it is characterized by glib or superficial charm, narcissism or grandiose self-worth, pathological lying, and conning/manipulation. In terms of affect, psychopathic personality is characterized by callousness and lack of empathy, failure to accept responsibility, shallow emotion, and lack of guilt or remorselessness. For the lifestyle dimension, psychopaths lack realistic life goals, have a parasitic orientation, and are globally irresponsible, impulsive, and stimulation seeking. On the antisocial dimension, psychopaths have poor behavioral control, evince early behavior problems, engage in juvenile delinquency, are criminally versatile, and have records of noncompliance/revocation of conditional release. In short, the theory of psychopathy describes a person who is selfish, self-centered, and self-motivated to secure his or her self-interest. This pursuit of self-interest is achieved through manipulation or force with little to no concern for the other person. In fact, the lack of concern for others is noteworthy because it occurs without guilt, remorse, or the most basic empathic notion that another human being is being victimized.

This profile should sound very familiar to the elemental structure of antisocial behavior which has been described in popular and influential general theory of crime as acts of force or fraud in the pursuit of self-interest (Gottfredson & Hirschi, 1990). In Gottfredson and Hirschi's work, self-control is the indispensable explanation of delinquency and crime and conceptually similar imprudent behaviors, such as gambling, cheating, smoking, driving without wearing safety belts, and otherwise engaging in risky, short-lived, hedonistic activities. There is tremendous empirical support for self-control theory, primarily because it ingeniously pairs an individual-level personality/temperamental construct with the core characteristics of antisocial behavior itself.<sup>1</sup>

But is self-control merely a watered down, less-specified form of psychopathy? Sixty years ago, Gough (1948) advanced a sociological theory of psychopathy which contained a profile that is fully compatible with Gottfredson and Hirschi's low self-control. According to Gough (1948), the psychopath is "the kind of person who seems insensitive to social demands, who refuses to or cannot cooperate, who is untrustworthy, impulsive, and improvident, who shows poor judgment and shallow emotionality, and who seems unable to appreciate the reactions of others to his behavior" (p. 365). Recently, others have intimated that the low self-control construct from the general theory of crime is really a proxy of psychopathy (DeLisi, 2003, 2005; DeLisi & Vaughn, 2008) and empirical research suggests that most of the predictive validity of self-control is subsumed by psychopathic

traits, such as narcissism (Vaughn, DeLisi, Beaver, Wright, & Howard, 2007). Overlap between the theories notwithstanding, psychopathy is a template of an actor who is prone to commit acts which hurt others.

Although criminologists should be praised for their ability to study antisocial, delinquent, and criminal behavior without attributing pejorative labels or making value judgments about offenders, there is another view that antisocial behavior is intrinsically negative and should be condemned as such (Hauser, 2006; Shermer, 2004; Wilson, 1993; Wilson & Herrnstein, 1985). Unlike the morally equivocal approach of mainstream criminology, the long history of the study of psychopathy shows that the disorder is pejorative.<sup>2</sup> Although Pinel's (1801) seminal description of psychopathy as "insanity without delirium" was neutral, subsequent depictions, such as Rush's (1812) "moral alienation of the mind," Prichard's (1835) "moral insanity," Maudsley's (1898) "moral imbecility," and Krafft-Ebing's (1905) "moral depravity" typified psychopathy as strongly negative. McCord (2001) noted that Enrico Ferri, one of the founders of modern criminology, viewed habitual criminals as being incorrigible, recalcitrant, morally insensitive to others, and attributed their pathology to congenital sources.

In other words, the study of psychopathy has almost always been conscious of the negativity that permeates the interpersonal violation of another human being. Lying, cheating, parasitically living off another, conning, scheming, and aggressing are intrinsically wrong. The more extreme criminal behaviors committed by psychopaths are *mala in se*. The nature of antisocial behavior is that it is wrongful and universally proscribed and sanctioned by societies immemorial. Psychopathy carries with it an edge, a connotation, and label that is loaded and has been shown to negatively affect offenders characterized as psychopathic (Richman, Mercer, & Mason, 1999; Walters, 2004). In other words, psychopathy and antisocial behavior are internally consistent.<sup>3</sup>

### **Psychopathy Accommodates Dimensional and Categorical Examinations of Antisocial Behavior**

Throughout its history, criminology has grappled with the best approach to studying criminal offenders. Are offenders categorically distinct from nonoffenders? Do offenders and nonoffenders differ in degree or in kind? If criminality is understood to range along a continuum, are there meaningful thresholds which can be set to distinguish bona fide offenders from lesser offenders? These issues are central in the psychopathy literature where there has been debate whether psychopaths are a distinct taxon or psychopathic personality is better understood as a continuously measured construct. It can be used as both.

Research has supported both dimensional and categorical conceptualizations of psychopathy. For instance, Harris, Rice, and Quinsey (1994) conducted taxometric analyses of data from 653 prisoners and produced mixed evidence for a psychopath taxon. Although childhood problem behaviors produced convergent validity of a taxon, adult criminal behaviors were continuously distributed and did not indicate a taxon (also see Quinsey & Lalumière, 1995). Skilling, Quinsey, and Craig (2001) conducted taxometric analyses of data from more than 1,000 males from a community sample of students to assess antisocial behavior in childhood. They produced evidence that a taxonic psychopathic group can be

demonstrated in children. Similarly, Harris, Rice, and Lalumière (2001) presented evidence based on data from 868 violent offenders that psychopaths are qualitatively distinct from other violent offenders and that their behavior is not due to early development insults as suggested by other major theories (e.g., Moffitt, 1993). Importantly, clinicians have used a cut-point of 30+ on the Psychopathy Checklist–Revised (PCL-R; Hare, 1991, 2003) to set a clinical diagnosis for psychopathy. In this way, a continuously distributed score is set at such a threshold that persons scoring above 30 (the maximum PCL-R score is 40) are viewed as prototypically psychopathic whereas those scoring below 30 are not. Thus, a categorical conceptualization of psychopathy—based on PCL-R score—stems from the way it is scored.

On the other hand, a growing body of taxometric research has shown that psychopathy and related forms of psychopathology such as Antisocial Personality Disorder (ASPD) are continuously distributed and therefore dimensional, not categorical. To illustrate, Marcus, Lilienfeld, Edens, and Poythress (2006) used taxometric analysis to study the dimensionality of ASPD among 569 state prisoners and 577 court-ordered residential drug treatment clients. They found no evidence of a taxonic latent structure to ASPD. A related study of 876 prison inmates and substance abuse treatment patients similarly found no evidence of a taxonic or categorical latent structure to psychopathy (Edens, Marcus, Lilienfeld, & Poythress, 2006). Today, the research community appears to view psychopathy as dimensional in nature as opposed to categorical. As noted by Hare and Neumann (2008), “The psychopath is often portrayed in the media as vile, inhuman, and qualitatively different from other individuals. However, research described above suggests that psychopathic personality traits in adults and adolescents are best viewed as existing on a continuum” (p. 234).

The construct of psychopathy accommodates both dimensional and categorical approaches to studying antisocial behavior. The latter approach can facilitate greater linkages between psychopathy and other personality-related constructs in criminology and the behavioral sciences. For instance, psychopathy represents extreme levels of normally distributed personality traits, and recent research has used structural models of personality to show how general models encapsulate psychopathy. In the parlance of the five factor model (FFM) of personality which assesses neuroticism, extroversion, openness, conscientiousness, and agreeableness (NEO-PI-R; Costa & McCrae, 1992), psychopaths are characterized by very high antagonism and very low conscientiousness, extroversion, and low neuroticism. A growing body of research illustrates the convergence between psychopathy and more general personality traits (Lynam, 2002; Lynam et al., 2005; Miller & Lynam, 2001; Skeem, Miller, Mulvey, Tiemann, & Monahan, 2005). Recent research has even translated the PCL-R into the FFM. For instance, according to Lynam and Widiger (2007), the core elements of psychopathy include extremely high interpersonal antagonism, pan-impulsivity, the absence of negative self-directed affect, the presence of angry hostility, and interpersonal assertiveness. By linking with broader personality measures and taking a dimensional as opposed to categorical approach, psychopathy can be used to study the array of offenders rather than narrowly focusing on the most extreme and exceptional offenders (although it can still be used for the latter group).

In his insightful critique of psychopathy as a general theory of crime, Walters (2004) suggested that a “balanced theory of crime rejects reductionism and dichotomization in

favor of dimensional constructs” (p. 12). Fortunately, the research community today prefers a dimensional/continuous understanding of psychopathy which makes for a broader applicability of the construct (see Marcus, Ruscio, Lilienfeld, & Hughes, 2008; Walters, Duncan, & Mitchell-Perez, 2007). Yet meaningful cut points can be used to make psychopathy categorical just as can be done for virtually any criminological measures (e.g., level of self-control, amount of strain, number of delinquent friends, etc.). This means that psychopathy is not just a clinical construct to be used for the study of homicide offenders and sexual offenders but an omnibus indicator of all forms of antisocial behavior.

### **Psychopathy Facilitates the Study of Antisocial Phenotypes Over the Life Span**

Although criminology historically fixated on delinquency occurring in adolescence, it has been revived in recent years by a focus on individual-level constructs from fields in psychology, neuropsychology, and others that study conceptually similar behavioral outcomes across the life span (DeLisi, Conis, & Beaver, 2008). This is important for two critical reasons. First, aggression, which could be viewed as the raw material for antisocial behavior, is importantly linked to temperamental, emotional, and cognitive dimensions that are important for understanding antisocial behavior (Anderson & Bushman, 2002; Loeber, 1982; Loeber & Dishion, 1983; Olweus, 1979). And all of these aspects of aggression are strongly stable over time, about as stable as intelligence. Second, the stability of aggression is strongest for those who score very low or very high meaning that the most aggressive youths, and certainly pathologically aggressive youths, are identifiable in childhood and beyond (Loeber & Hay, 1997).<sup>4</sup> In other words, decades of research on antisocial behaviors and the personality profile of antisocial individuals suggest the profile of a highly aggressive, antisocial type which is stable over time. A likely suspect for this “type” is psychopathy.

Originally applied to adults, psychopathy has increasingly been used to study antisocial behaviors and personality traits in adolescents and children.<sup>5</sup> Research has shown strong conceptual overlap between psychopathy in adults and youths at the behavioral (Barry et al., 2000; Campbell, Porter, & Santor, 2004; Corrado, Vincent, Hart, & Cohen, 2004; Frick, O’Brien, Wootton, & McBurnett, 1994; Gretton, McBride, Hare, O’Shaughnessy, & Kumka, 2001), cognitive and emotional (Blair, 1997; Blair, Budhani, Colledge, & Scott, 2005; Blonigen, Hicks, Krueger, Patrick, & Iacono, 2005), interpersonal (Lynam et al., 2005), and physiological levels (Blair, 1999; Blair & Cipolotti, 2000; Kiehl et al., 2001). For instance, Forth, Hart, and Hare (1990) found that psychopathic youths had criminal histories with more previous violent offending and institutional violence than nonpsychopathic youths. Subsequent researchers have shown that even as adolescents, psychopathic offenders are more likely than nonpsychopathic youths to commit a violent offense in the community as well as on release from detention, to engage in both instrumental, or “cold-blooded” and reactive or “hot-blooded” forms of aggression, and to be processed by the juvenile justice system (Brandt, Kennedy, Patrick, & Curtin, 1997; Loper, Hoffschmidt, & Ash, 2001; Stafford & Cornell, 2003).

Childhood and adolescent psychopathy is typified by an interactive mix of impulsivity, callous and unemotional traits (CU), and conduct problems—a constellation of traits known as fledgling psychopathy (Lynam, 1996, 1997, 1998). There is strong evidence of psychopathy occurring in childhood. For example, Barry et al. (2000) studied 154 children aged 6 to 13 years with diagnoses for ADHD and ODD/CD and who were divided according to teacher ratings of callous-unemotional traits. Those with ADHD and ODD/CD and who scored high on CU demonstrated fearlessness, a reward-dominant response style, and reduced stress about their behavioral problems. Frick, Stickle, Dandreaux, Farrell, and Kimonis (2005) conducted a 4-year longitudinal study of children in Grades 3, 4, 6, and 7 and who were scored for behavior problems and the presence of CU traits. Children with conduct problems who also showed CU traits had the highest rates of conduct problems, self-reported delinquency, and police contacts. In fact, the psychopathic group (25.5% of the total sample) accounted for more than 50% of police contacts across the last three waves of data collection. Based on data from the Pittsburgh Youth Survey, Pardini, Obradović, and Loeber (2006) studied these overlapping constructs among youths in grades 1, 4, and 7. Conduct problems predicted delinquency persistence among the first and fourth grades and inattention was also related to delinquency among fourth graders. For boys in grade 7, interpersonal callousness uniquely predicted persistence in delinquency.

What is more interesting is that CU traits including guiltlessness, lack of consideration of other people's feelings, meanness, disinterest in school and behavioral performance, social isolation, and rare displays of feelings/emotion are not only prodromes of adult psychopathy, but also they are strongly heritable. This provides supportive evidence for the idea that psychopathy is a congenital disorder. For instance, Viding, Blair, Moffitt, and Plomin (2005) studied 3,687 twin pairs and found that 67% of variation in extreme CU traits among 7-year-old children was genetic in etiology. For extreme antisocial behaviors in 7-year-olds with psychopathic tendencies, genes accounted for 81% of the variation. Subsequent studies found that 71% of conduct problems in boys and 77% in girls were attributable to genes (Viding, Frick, & Plomin, 2007) and that 80% of variance in twins with CU traits and antisocial behavior was heritable (Larsson, Viding, & Plomin, 2008).

In addition to its relevance to childhood and adolescent psychopathology, the longitudinal relevance of psychopathy is also clear from its linkages to life-course and criminal careers research (Farrington, 2005; Rutter, 2005). For instance, Hemphill, Templeman, Wong, and Hare (1998) examined the utility of psychopathy in predicting recidivism and criminal careers among 247 Canadian offenders selected from institutional settings. They found that psychopathy was a robust predictor of recidivism and criminal career severity which contributing unique predictive validity over and above that offered by other key variables. Blackburn and Coid (1998) compared the criminal careers of 78 psychopaths and 89 nonpsychopaths sampled from a maximum-security psychiatric hospital. Psychopaths' age at first criminal conviction was 12, 5 years earlier than the onset for nonpsychopathic maximum-security prisoners. Moreover, the psychopathic group averaged more than 26 criminal convictions, more than 250% more convictions than the comparison group, and netted significantly more convictions for major violence, minor violence, burglary, property damage, fraud, robbery, and firearms violations.

Using a statewide population of 723 confined delinquents, Vaughn and DeLisi (2008) found strong convergent validity between psychopathy and a career criminality index as offenders who presented with psychopathic characteristics were several hundred percent more likely than offenders without psychopathic traits to be classified as career criminals. Subsequent ROC-AUC analyses indicated that the Antisocial Process Screening Device (APSD) and modified Psychopathic Personality Inventory–Short Version (mPPI-SV) measures were moderately able to correctly classify career criminal membership, from 70% to nearly 73%, respectively. When higher threshold specifications for APSD and mPPI-SV were set, the classification accuracy improved to an impressive 88%. In multivariate analyses, the APSD Impulsive factor, APSD Unemotional factor, mPPI-SV Fearlessness factor, and mPPI-SV Narcissism factor significantly predicted career criminality net the effects of demographic, socioeconomic, and mental health factors. Vaughn, Howard, and DeLisi (2008) produced similar results for delinquent careers. Compared to their peers, psychopathic youths had greater violent and nonviolent delinquency, more aggression, and demonstrated three types of early onset antisocial behaviors. Loeber et al. (2002) assessed the place of psychopathy among boys from the Pittsburgh Youth Study over a 14-year span. They found that 20% to 25% of boys were characterized as multiple problem boys based on evidence of covert behavior problems, ADHD, conduct problems, aggression, and lack of internalizing behaviors, such as depressed mood. The strongest predictor of membership in this category was guiltlessness (OR = 5.8 to 7.3). Boys who scored high on the Childhood Psychopathy Scale (CPS) had delinquent careers characterized by the most frequent, severe, aggressive, and stable antisocial conduct while being almost immune to internalizing disorders.

Finally, Lynam, Loeber, and Stouthamer-Loeber (2008) recently evaluated the stability of psychopathy between ages 13 and 24 based on data from the Pittsburgh Youth Study. They assessed the potential moderating effects of 13 important correlates of delinquency including antisocial behavior measures, parenting factors, socioeconomic status, and others. None of the moderators acted as protective factors to the stability of psychopathy which suggests it is stable and “relatively resistant to socialization pressures” (p. 241). If psychopathy is a stable, enduring feature of antisocial persons, it is likely to emerge as a central construct in the longitudinal study of offending over the life-span one with utility for understanding maladaptive behaviors among adults, adolescents, and children.

### **Psychopathy Accommodates the General Overlap of Antisocial Behaviors Among Diverse Populations**

Probably the greatest strength of psychopathy is its predictive validity across a range of behavioral outcomes. It has tremendous generality and can be used as the unifying causal construct to explain the comorbidity of antisocial behaviors and broad forms of psychopathology. Several scholars can attest to its utility, and even those opposed to the theory of psychopathy cannot ignore its potent explanatory and predictive power (Hare, 1998). In a summary review, Hare (1999) concluded, “One of the interesting findings to emerge from this research is that in spite of their small numbers—perhaps 1% of the general population—psychopaths make up a significant portion of our prison populations and are responsible for a markedly

disproportionate amount of serious crime and social distress” (p. 186). In their recent review of the literature, Douglas, Vincent, and Edens (2006, p. 534) found that psychopathy was perhaps the quintessential predictor of recidivism and the magnitude of its effects far exceeded the relative effects of other known risk factors for serious and violent criminal behavior. In their review article, Harris, Skilling, and Rice (2001) advised that “psychopathy is the most important construct relevant to the criminal justice system” (p. 247). In a recent meta-analysis, Walters (2003) reviewed that psychopathy is a significant predictor of diverse forms of institutional adjustment, such as aggression, self-harm, physical and verbal infractions, violence, nonviolence, major and minor infractions and diverse forms of recidivism including delinquency, aggression, violent, sexual, and nonviolent reoffending, and rehospitalization.

Psychopathy has shown empirical value in predicting antisocial outcomes among diverse populations and subpopulations selected from community, clinical, and correctional samples. Psychopathy is applicable across gender (Cale & Lilienfeld, 2002; Salekin, Rogers, & Sewell, 1997; Salekin, Rogers, Ustad, & Sewell, 1998; Vaughn, Newhill, DeLisi, Beaver, & Howard, 2008), ethnicity (Sullivan & Kosson, 2006; Vitacco, Neumann, & Jackson, 2005), and age (DeLisi, Dooley, & Beaver, 2007; Salekin, Neumann, Leistico, DiCicco, & Duros, 2004; Vaughn & Howard, 2005b), among civil psychiatric patients (Silver, Mulvey, & Monahan, 1999) and foster-care youth (Vaughn, Litschge, DeLisi, Beaver, & McMillen, 2008), and is applicable subclinically to the general population (Babiak & Hare, 2006; Hall & Benning, 2006). Psychopathy is also relevant to common forms of childhood and adolescent delinquency. For example, Jolliffe and Farrington (2006) found that in a sample of 376 boys and 344 girls that CU traits were associated with increased frequency of bullying behavior and violent bullying among the boys. Psychopathy has also been shown to predict antisocial behavior in environments that theoretically should protect against delinquency. For instance, psychopathic traits among youths in the Pittsburgh Youth Study were stronger predictors of violence in high socioeconomic versus low socioeconomic neighborhoods suggesting that in “good” settings, constitutional/biological constructs are strongly predictive of crime (Beyers, Loeber, Wikström, & Stouthamer-Loeber, 2001).

Psychopathy has expectedly been found among diverse groups of criminals across the offending landscape and is a robust predictor of offending and recidivism. To illustrate, Harris, Rice, and Cormier (1991) examined the recidivism rates of 169 male offenders released from a psychiatric facility and followed-up 1 year later. Nearly 80% of psychopathic offenders committed a new violent offense, and psychopathy was the strongest predictor of recidivism. Its effects were stronger than the combined effects of 16 background, demographic, and criminal history variables. Campbell, Porter, and Santor (2004) studied 226 incarcerated adolescent offenders and found that about 9% exhibited high levels of psychopathic traits; however, these youths had the most violent and versatile criminal histories. As noted by DeLisi and Vaughn (2008), “As recidivists, psychopaths are quicker, more productive, and more severe once released back to the community” (p. 160).

For homicide offenders, Laurell and Dåderman (2007) found that 40% of murderers scored 27 or above on the PCL-R and more than 31% scored above 30. In their review of the literature, Millon and Davis (1998) suggested that many murderers could be characterized as malevolent psychopaths, which is a particularly negative subtype of offender characterized as belligerent, mordant, rancorous, vicious, brutal, callous, and vengeful. Most homicides committed by psychopaths are more likely to be “cold-blooded” and completely premeditated.

A study of sexual homicides committed by psychopathic and nonpsychopathic offenders in Canadian prisons revealed that nearly 85% of psychopathic murderers engaged in some degree of sadistic behavior during the course of their murder. Psychopath-perpetrated murders contained significantly greater levels of gratuitous and sadistic violence (Porter, Woodworth, Earle, Drugge, & Boer, 2003).

Psychopathy is also germane to sexual offending. For civilly committed sex offenders, Jackson and Richard (2007) found significant evidence of psychopathic personalities (mean PCL-R score was 24.12) among rapists, child molesters, and mixed-victim sexual predators, and nearly 28% of sex offenders exceeded the 30+ PCL-R cut-point. In a sample of 450 sexually violent offenders in Florida, Jill Levenson and John Morin found that for each point above the mean score on the PCL-R, offenders were 49% more likely to be civilly committed or selected for involuntary confinement after serving a prison sentence (Levenson & Morin, 2006). Inmates who met the standard cut score of 30 were 490% more likely to be selected for civil commitment. In conjunction with diagnosed paraphilias, psychopathy correctly predicted commitment recommendations in 90% of cases.

In their study of 22 adolescent male sex offenders, Gretton et al. (2001) found that youths scoring higher on the PCL:YV were more likely to escape from custody, violate the conditions of their probation, and accumulated more total, violent, and nonviolent offenses after release from treatment programs. Moreover, the most violent youths were those with greater psychopathic traits and evidence of deviant sexual arousal (e.g., sexual sadism). Raymond Knight and Jean-Pierre Guay summarized 50 years of research on the relationship between psychopathy and sexual offending (Knight & Guay, 2006). They concluded that psychopaths are significantly more likely than nonpsychopathic criminals to rape and are overrepresented in clinical samples of sexual offenders, psychopathic traits predict rapacious behavior among noncriminal samples, psychopaths constitute a small subgroup of rapists that are extraordinarily violent and recidivistic, and the underlying processes that contribute to psychopathy are similar to those of sexually coercive behavior. Among violent prisoners, Simourd and Hoge (2000) examined the case histories of 321 felons incarcerated for violent crimes. Of the sample, 36 inmates were psychopaths and 285 were not. Compared to nonpsychopaths, psychopaths had more previous, total, violent, noncompliant, and different types of criminal convictions; more arrests; greater criminal sentiments and pride in antisocial behavior; and greater supervision needs.

The latter findings are important because they show the general validity of psychopathy at predicting diverse forms of antisocial conduct among diverse groupings of offenders. Across an anthology of behavioral outcomes—from aggression to delinquency to offending to institutional misconduct to recidivism to predatory violence—psychopathy has been shown to be an integral predictor of crime.

## **Psychopathy Accommodates Emerging Biosocial Explanations of Antisocial Behavior**

Several features of psychopathy are suggestive of a biosocial etiology. The disorder emerges in childhood in the form of callous and unemotional traits which are usually coupled with conduct problems. The depth of the CU traits implicates neuropsychological

problems relating to emotional relatedness, morality, and the ability to learn or regulate behavior after receiving punishment. Over time, psychopathic traits remain relatively stable and accentuate antisocial behavior through adolescence and adulthood. Due to the extremity of their criminal conduct and the chilling display of their personality, there is a notion that psychopathic offenders are preternatural criminals. For instance, some of the core characteristics of psychopathic personality, such as low fear and autonomic functioning (Hare, 1968; Lykken, 1957, 1995; Martens, 2000) suggest a physiological etiology and over the years researchers have explored the biological and biosocial undergirding of psychopathy. In a recent review article, Walsh and Wu (2008) suggested, "Regardless of what trait or traits (low empathy, guilt, fear, anxiety, etc.) are emphasized to characterize psychopathy by one theorist or another, they all boil down to low peripheral nervous system (ANS) arousal and/or central nervous system (BAS/BIS) abnormalities" (p. 143).

If psychopathy is the unified theory of crime, it should have relevance to the scientific study of antisocial behaviors across disciplines in the social, behavioral, and medical sciences. Indeed, Hare and Neumann (2008) observed, "A notable trend is the interest shown by neuroscientists in using psychopathy as a vehicle for evaluating their own models of behavior, personality, and brain function. The result may ultimately be an integration of psychopathy theory and research with more general psychobiological, behavioral genetic, developmental, and personality models" (p. 240). The evidence for linkages between brain activity and psychopathy is compelling. For instance, positron emission tomography (PET, where subjects are injected with a short-lived radioactive tracer that allows for assessment of glucose metabolism in specific regions of the brain which could show functional impairment) research has shown brain glucose metabolism abnormalities in the prefrontal and temporal regions of the brains of antisocial persons (e.g., psychopaths, murderers, violent offenders). Another brain imaging technique uses gamma rays to assay brain blood flow and is known as single photon emission computed tomography (SPECT). The balance of this research indicates that aggressive, antisocial persons exhibit reduced blood flow in the prefrontal cortex, temporal cortex, and hippocampus. In their review of brain abnormalities in antisocial persons, Yang, Glenn, and Raine (2008) concluded,

In the frontal region, deficits in the prefrontal and anterior cingulate cortex may contribute to impulsivity, irresponsibility, poor decision-making, and deficient emotional information processing in antisocial individuals. In the temporal regions, the amygdala-hippocampal and superior temporal impairments may predispose to antisocial features such as inability to follow social rules, deficiency in moral judgment, and failure to avoid punishment. (p. 74)

In a separate view of structural brain abnormalities among psychopaths, Weber, Habel, Amunts, and Schneider (2008) provided evidence that implicates additional brain structures. Psychopaths present with impaired retrieval of emotional memories and fear conditioning and impaired associative learning in the hippocampus. There is increased functional interhemispheric connectivity and reduced interhemispheric asymmetries of function in the corpus callosum. There is evidence that psychopaths have impaired processing of abstract material and perspective awareness in the superior temporal gyrus.

Biological investigations have shed light on the neural basis on which many of the hallmark characteristics of psychopathy rest. For instance, pathological lying which represents

manipulation and interpersonal deceitfulness has a long history in the clinical study of psychopathic persons. When normal individuals lie, there is increased bilateral activation in the prefrontal cortex of the brain, but the same activation is not observed in deceitful persons. Yang et al. (2005) conducted structural MRI analysis of 12 pathological liars who scored highly on psychopathic traits, 16 antisocial controls, and 21 normal controls. Liars showed a 22% to 26% increase in prefrontal white matter and 36% to 42% reduction in prefrontal grey/white ratios compared to both control groups. This implicates the prefrontal cortex as an important part of the neural mechanisms that underlie deceitfulness.

Rilling and his colleagues (2007) explored the social cooperation aspects of psychopathy using fMRI of subjects playing the Prisoner's Dilemma game which measures reciprocal altruism and the ability to cooperate with others. Those scoring highly on psychopathy self-report questionnaires—particularly men—were more likely to defect and less likely to cooperate even after establishing mutual cooperation with a partner. Psychopathic subjects experienced more outcomes where their cooperation was not reciprocated; however, they showed less amygdala activation suggesting weaker aversive conditioning to negative outcomes. Psychopathic subjects also showed weaker activation within the orbitofrontal cortex when choosing to cooperate and weaker activation within the dorsolateral prefrontal and rostral anterior cingulate cortex when choosing to defect. In other words, more psychopathic persons were biased toward noncooperation with others. Psychopathy has also been linked to diverse biological and biosocial areas of study including neuroendocrinology, the study of neurotransmitters, investigations of subcortical, cortical, anterior cingulate, and limbic brain structures, brain connectivity, and brain development (Glenn & Raine, 2008).

In several instances, the amygdala has been mentioned as importantly related to the study of psychopathy because of its role in allowing people to process emotions such as fear, sadness, and empathy for healthy moral socialization. According to Blair (1995, 2006; Blair, Mitchell, & Blair, 2005), the amygdala's response to the fear and sadness of victims during empathy induction is crucial for socialization. For normal moral socialization to occur, the developing child needs to associate harmful transgressions and punishment with the distress of the victim. But, since amygdala dysfunction underlies psychopathy, those with the disorder never develop a neural connection between their behavior, the victim, and punishment. In this way, those with amygdala dysfunction never learn the stimulus-reinforcement association that is critical to moral socialization. They also do not learn to avoid antisocial behavior as a means to achieve their goals and satisfy their self-interest. Blair's amygdala dysfunction theory is provocative and provides neural insights into the ability of the psychopath to recurrently victimize others and seemingly never learn from the behavioral transgressions that result in arrest and confinement.

The research described here is exciting because technology has advanced to the point where researchers can specify the ways that brain structures and neural substrates influence the core characteristics of psychopathy. Never before has the sublime interplay between nature and nurture been available for scientific discovery. Given the extremity and costs of the antisocial behaviors of psychopathic offenders, it is likely that molecular genetics researchers will identify candidate genes for psychopathy as is already being done for behavioral disorders, such as ADHD and general forms of antisocial behavior (see Beaver, 2008; Raine, 1993; Walsh & Beaver, 2009; Wright, Tibbetts, & Daigle, 2008).

## Conclusion

When a crime occurs, it is common for observers to examine the instant or current crime, assess the character, personality, and behavioral history of the accused, and evaluate whether these two seem to mesh. For instance, serious or violent criminal behavior seems out of character for someone with no prior delinquent or criminal history or record of violence. Garden-variety criminal offending fits squarely within the behavioral repertoire of someone who has recurrently violated the rights of others (DeLisi, 2001, 2005). The personality, behavioral history, and behavioral repertoire of the offender often are logically congruent with their current behavior. Psychopathy is logically congruent with antisocial behavior—Research from neuroscience, psychology, sociology, psychiatry, criminology, forensics, and criminal justice typifies a person characterized by glib or superficial charm, narcissism or grandiose self-worth, pathological lying, conning/manipulation, callousness and lack of empathy, failure to accept responsibility, shallow emotion, lack of guilt or remorselessness, lack of realistic life goals, parasitic orientation, global irresponsibility, impulsivity, and stimulation seeking. Psychopaths have poor behavioral control, evince early behavior problems, engage in juvenile delinquency, are criminally versatile, and have records of noncompliance/revocation of conditional release.

In addition to its theoretical and empirical significance, psychopathy is also critically important in practice and should be included in every handbook of every practitioner position in the juvenile and criminal justice systems. A recent study speaks to the relevance of psychopathy to juvenile justice practice. Salekin (2008) conducted a prospective study of 130 court-referred child and adolescent delinquents to examine recidivism patterns across a 3- to 4-year time span. Psychopathy was a significant predictor of general delinquency and violent delinquency even after controlling for 14 correlates of delinquency including delinquent peers, drug use, family arrests, socioeconomic status, family background, intelligence, prior delinquency, school absences, education, race, gender, and age. Research also suggests that juvenile court judges strongly consider variables such as dangerousness, level of criminal sophistication-maturity, treatment amenability—all of which are implicated by the theory of psychopathy—when evaluating which juveniles to waive to adult court (see Brannen et al., 2006; Salekin, Yff, Neumann, Leistico, & Zalot, 2002). Psychopathy is powerfully related to recidivism and noncompliance which behooves practitioners to recognize the core personality traits of their psychopathic and nonpsychopathic clients and tailor supervision and treatment needs accordingly.

In other words, the theory of psychopathy presents an actor who is believably compatible with antisocial behavioral outcomes. Its core characteristics match the conceptual nature of antisocial behavior and embody or exemplify the sordid essence that intrinsically defines violating the rights of others. Because the construct can be utilized dimensionally and categorically, it can be used to assess its predictive validity across the universe of antisocial behaviors occurring in childhood, adolescence, and adulthood. It can be used to study an array of crimes among diverse subgroupings of offenders. Evidenced by the generality and nefariousness of the antisocial behavior of psychopaths, it has long been held that the disorder has at least a partially biological basis and current scientific insights are

showing how. For virtually any research question centering on antisocial behavior, psychopathy is relevant. And it should, for it is the unified theory of crime.

## Notes

1. A recurrent critique of psychopathy is that it is a tautology—the characteristics of psychopathy predict antisociality because they are the same thing. This critique is easily dismissed in at least two ways. First, researchers often omit behavioral items from psychopathy measures when creating multivariate models so that antisocial behaviors are not being used to predict antisocial behaviors (which would perhaps be tautological). Second, correlational analyses can be conducted to statistically evaluate whether independent variables (e.g., psychopathic traits) are too strongly correlated with dependent variables (e.g., number of arrests). Moreover, regression diagnostics (variance inflation factors, tolerances) can also be used so the researcher is confident that models are not violating the assumption of multicollinearity.

2. Despite the long clinical history of psychopathy, it was arguably only “introduced” to criminology in 1996 (Hare, 1996) and to the general public in 1993 (Hare, 1993).

3. Psychopathy is controversial because in the public mind, psychopaths are deserving of the death penalty perhaps because of their label. For instance, Edens, Guy, and Fernandez (2003) presented vignettes of a 16-year-old murderer who was described with classic psychopathic symptoms to research respondents. They were 130% more likely to recommend that youths should be sentenced to death if they had psychopathic traits. Moreover, respondents indicated that youths should not receive treatment in prison.

4. Caspi, Bem, and Elder (1989) used the concepts cumulative continuity to describe how an individual’s interactional style channels him into environments that reinforce that style and thus sustain behavior over time through the progressive accumulation of its own consequences (also see Krueger, Caspi, & Moffitt, 2000). Interactional continuity arises when a person’s style evokes reciprocal, sustaining responses from others. This means that all types of interpersonal styles become habituated over time, including antisocial ones, such as psychopathy.

5. Several self-reported measures of juvenile psychopathy have been created in recent years including the Inventory of Callous-Unemotional Traits self-report, Childhood Psychopathy Scale (CPS), Psychopathic Personality Inventory (PPI), Self-Report Psychopathy (SRP) scale, and Youth Psychopathic Traits Inventory (YPI) among others. Vaughn and Howard (2005a) found varying degrees of empirical support for these measures. (For a more cautious look at the measurement and evaluation of psychopathic traits in childhood, see Edens, Skeem, Cruise, & Cauffman, 2001; Johnstone & Cooke, 2004; Seagrave & Grisso, 2002.)

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