Promises and Perils of a Psychopathology of Crime: The Troubling Case of Juvenile Psychopathy

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INTRODUCTION

Contemporary clinical legal education and practice could benefit significantly from a greater appreciation of scientific findings pertaining to mental disorders. However, indiscriminant application of prevailing psychiatric paradigms could prove problematic for, and even pernicious to, the profession. Recent efforts to generalize the construct psychopathy to a select subpopulation of juvenile offenders, thought to be particularly persistent, active, versatile, and violent in their criminal offending, exemplify the potential promises and pitfalls of widespread adoption of mental disorder conceptualizations by legal practitioners. This review examines historical accounts and current conceptualizations of psychopathy, contemporary approaches to juvenile psychopathy assessment, scientific findings bearing on the validity of the designation, etiological theories, and future directions for research on juvenile psychopathy. Although juvenile psychopathy research may eventually lead to earlier and more effective treatment of an important subgroup of juvenile offenders, premature application

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of psychiatric constructs such as psychopathy by legal practitioners operating within the juvenile justice system, could have serious adverse consequences for some youth and might discourage future interaction between the legal and mental health research and practice communities.

Applications of psychiatric conceptualizations to the problem of crime increased notably in the decade following publication of Dr. Raine's influential text, *The Psychopathology of Crime: Criminal Behavior as a Clinical Disorder*. Although birth cohort and chronic offender research had previously established that a small subpopulation of youth offenders—perhaps five to eight percent—commit a majority of general and violent crimes, the notion that members of this subgroup were psychiatrically disordered gained widespread currency with the publication of Dr. Moffitt's classic paper distinguishing "life-course persistent" and "adolescence-limited" delinquent subtypes. Dr. Moffitt observed:

[L]ongitudinal research consistently points to a very small group of males who display high rates of antisocial behavior across time and in diverse situations. The professional nomenclature may change, but the faces remain the same as they drift through successive systems aimed at curbing their deviance: schools, juvenile-justice programs, psychiatric treatment centers, and prisons. The topography of their behavior may change with changing opportunities, but the *underlying disposition* persists throughout the life course.⁴

^{1.} ADRIAN RAINE, THE PSYCHOPATHOLOGY OF CRIME: CRIMINAL BEHAVIOR AS A CLINICAL DISORDER (1993).

^{2.} See Rolf Loeber et al., Serious and Violent Juvenile Offenders, in Serious and Violent Juvenile Offenders: RISK FACTORS AND SUCCESSFUL INTERVENTIONS 13 (Rolf Loeber & David Farrington eds., 1998); Patrick H. Tolan & Deborah Gorman-Smith, Development of Serious and Violent Offending Careers, in Serious and Violent Juvenile Offenders, supra, at 68; Marvin E. Wolfgang et al., Delinquency in a Birth Cohort (1972); Marvin E. Wolfgang et al., From Boy To Man, From Delinquency to Crime (1987).

^{3.} Terrie E. Moffitt, Adolescence-Limited and Life-Course-Persistent Antisocial Behavior: A Developmental Taxonomy, 100 PSYCHOL. REV. 674 (1993) (emphasis added).

^{4.} Id. at 678.

Dr. Moffitt argued that the disposition underlying persistent, lifecourse criminality was rooted in early neuropsychological vulnerabilities and criminogenic environmental influences that interacted to produce the disorder through a variety of interpersonal transactional processes.⁵

Other taxonomies of antisocial youth have emerged in recent years as investigators have attempted to better account for the conspicuous heterogeneity that characterizes the youth-offender population. Many of these classifications, including the distinction between psychopathic and non-psychopathic juvenile offenders, describe two primary offender subgroups: (1) a relatively small group of early-onset, criminally-versatile, chronic offenders who frequently present with histories of violent behavior, comorbid attention-deficit-hyperactivity disorder (ADHD), and conduct disorder (CD); and (2) a substantially larger group with later onset of offending, lower rates of interpersonal violence and psychopathology, and offending histories that terminate in adolescence.

Implicit in many juvenile offender typologies is the notion that neurobiological or other constitutional factors play a key role in the pathogenesis of the more serious youth offender subtype, whereas the origins of the more common and comparatively benign juvenile offender subtype are considered primarily social in nature. While it is evident that valid schemes for subtyping juvenile offenders may lead to an increased understanding of factors related to the etiology, prognosis, and treatment of early antisocial behavior (and ultimately reduce the social costs of delinquency and adult crime), it is probable that such typologies will have serious deleterious consequences for youth diagnosed with the more pernicious subtype of the disorder. Many social service and legal practitioners regard "juvenile psychopaths" as untreatable, at least given currently available psychopharmacological. cognitive-behavioral. interventions.8 social/criminological considerations These

5. Id. at 680-83.

^{6.} See Loeber et al., supra note 2.

^{7.} See id. at 16-18; Herbert C. Quay, The Psychobiology of Undersocialized Aggressive Conduct Disorder: A Theoretical Perspective, 5 DEV. & PSYCHOPATHOLOGY 165 (1993).

^{8.} See generally Myla H. Young et al., The Incarcerated Psychopath in Psychiatric Treatment: Management or Treatment? in THE CLINICAL AND FORENSIC ASSESSMENT OF

notwithstanding, mounting evidence suggests that adolescent offenders in North America are increasingly subjected to assessments for psychopathy and that important determinations with regard to the disposition of youths' cases are being made on the basis of these findings. Thus, it is critical that legal practitioners be aware of key issues and recent findings vis-à-vis juvenile psychopathy research and practice.

Several convergent developments have spurred growing general interest in the relationship of mental disorders to the onset, nature, frequency, and termination of antisocial behavior. Recent years have witnessed noteworthy improvements in the reliability and validity of psychiatric diagnosis¹⁰ and greater emphasis on longitudinal investigation of antisocial conduct across the life course.¹¹ Political events of the past decade may also have significantly enhanced public and professional interest in serious youth offending. Dr. DiIulio's "infamously wrong prediction about the coming wave of superpredators"¹² was widely influential in public policy circles during the 1990s, although it merely echoed earlier concerns regarding the role of adolescent "supercriminal psychopaths" in rising crime rates.¹³ Increased federal funding for research specifically targeting serious, violent, and chronic juvenile offenders also stimulated additional interest in psychiatric disorders, contributing to persistent antisocial conduct.¹⁴

Legal practitioners in the adult criminal justice and the juvenile justice systems will, in all likelihood, encounter the notion of

PSYCHOPATHY: A PRACTIONER'S GUIDE 313 (Carl B. Gacano ed., 2000).

^{9.} See David R. Lyon & James P.R. Ogloff, Legal and Ethical Issues in Psychopathy Assessment, in THE CLINICAL AND FORENSIC ASSESSMENT OF PSYCHOPATHY, supra note 8, at 139; Laurence Steinberg, The Juvenile Psychopath: Fads, Fictions, and Facts, in 5 Perspectives on Crime and Justice: 2000-2001 Lecture Series 35 (2002).

^{10.} See Donald W. Goodwin & Samuel B. Guze, Psychiatric Diagnosis (5th ed. 1996).

^{11.} See Alfred Blumstein & Jacquline Cohen, Characterizing Criminal Careers, 237 SCIENCE 985 (1987); Alfred Blumstein et al., Criminal Career Research: Its Value for Criminology, 26 CRIMINOLOGY 1 (1988).

^{12.} Steinberg, *supra* note 9, at 43 (commenting on John DiIulio, *The Coming of the Super-Predators*, WEEKLY STANDARD, Nov. 27, 1995, at 23).

^{13.} WILLIAM MCCORD & JOAN MCCORD, THE PSYCHOPATH: AN ESSAY ON THE CRIMINAL MIND vii (1964).

^{14.} See generally Loeber et al., supra note 2.

psychopathy at some point in their professional careers; they should be aware of issues and research relevant to the construct.

In Part I, this Article describes the historical conceptions of psychopathy, and Part II discusses contemporary perspectives. Part III reviews contemporary juvenile psychopathy assessment measures. In Part IV, the Article analyzes the factors characteristic of psychopathic youth. Part V reports on pertinent etiological theories. Finally, Part VI suggests directions future research in this field should take. Part VII provides concluding remarks on the troubling case of juvenile psychopathy.

I. HISTORICAL CONCEPTIONS OF PSYCHOPATHY

Descriptions of syndromes similar to psychopathy date back to antiquity. Selected findings from Drs. Millon, Simonsen, and Birket-Smith's superb review of the evolution of the construct since the early nineteenth century are briefly recapitulated below.¹⁵

The first reference to "moral insanity" as a clinical disorder appeared in the work of Dr. Pritchard in 1837,¹⁶ although Pinel in 1801¹⁷ and Dr. Rush in 1812¹⁸ observed that relative clarity of thought could co-exist with egregiously aberrant social behavior in some persons.

German psychiatrists of the late nineteenth century argued for the adoption of the diagnosis "psychopathic inferiority," which they considered less pejorative than the "moral insanity" appellation. ¹⁹ By "psychopathic inferiority," Koch referred to a biologically-based,

^{15.} Theodore Millon et al., *Historical Conceptions of Psychopathy in the United States and Europe, in Psychopathy: Antisocial*, Criminal, and Violent Behavior 3 (Theodore Millon et al. eds., 1998).

^{16.} See James C. Pritchard, A Treatise on Insanity and Other Disorders Affecting the Mind (1837).

^{17.} See Phillipe Pinel, A Treatise on Insanity, in 3 SIGNIFICANT CONTRIBUTIONS TO THE HISTORY OF PSYCHOLOGY 1750-1920 (Daniel N. Robinson ed., 1977).

^{18.} See Benjamin Rush, Medical Inquiries and Observations upon the Diseases of the Mind (Hafner Publ'g Co. 1962).

^{19.} JULIUS L. KOCH, DIE PSYCHOPATHISCHEN MINDERWERTHIGKEITEN (1891); Adolf Meyer, A Review of Recent Problems of Psychiatry, in Nervous and Mental Diseases 662 (6th ed. 1908).

life-long personality disorder reflecting an acquired or inherited defect in neurological function. 20

Psychoanalytic conceptions of psychopathy emerged between the end of World War I and the 1940s. Dr. Aichhorn viewed delinquent behavior as a symptomatic expression of underlying psychic conflict.²¹ Similarly, Dr. Alexander contended that psychopaths were driven by unconscious forces to seek the satisfaction of neurotic impulses and the punishment their satisfaction necessarily entailed.²²

Two typologies published prior to World War II presaged modern descriptions of the disorder. Schneider described an affectionless psychopathic subtype characterized by remorselessness, an absence of conscience, and an actively antisocial subtype. Skarpman distinguished two primary forms of the disorder: symptomatic and idiopathic. Symptomatic psychopaths were thought to be fundamentally neurotic in character, engaging in antisocial behavior in reaction to unconscious drives, whereas idiopathic psychopaths were adjudged "constitutionally guiltless, insensitive to the feelings of others, and disposed to acquisitiveness and aggression." Partridge highlighted psychopaths' apparent "lack of deep emotional reaction," concluding that "of sympathy and affection they have little."

Developmental/behavioral models of the mid-twentieth century emphasized the role of conditioning factors and vicarious learning in the etiology of antisocial behavior.²⁷ Interventions evaluated in

^{20.} See KOCH, supra note 19, at 54.

^{21.} See generally August Aichhorn, Wayward Youth (1925).

^{22.} See generally Franz Alexander, Psychoanalysis of the Total Personality (1935); Franz Alexander & William Healy, The Roots of Crime: Psychoanalytic Studies (1935); Franz Alexander, *The Neurotic Character*, 11 Int'l J. Psycho-Analysis 292 (1930).

^{23.} See Kurt Schneider, Die Psychopathischen Personlichkeiten (1923).

^{24.} See Ben Karpman, On the Need of Separating Psychopathy into Two Distinct Clinical Types: The Symptomatic and the Idiopathic, 3 J. CRIMINAL PSYCHOPATHOLOGY 112 (1941).

^{25.} Millon et al., supra note 15, at 18.

^{26.} George Partridge, Current Conceptions of Psychopathic Personality, 10 Am. J. PSYCHIATRY 53, 85 (1930).

^{27.} See generally Albert Bandura & Richard Walters, Adolescent Aggression (1959); Hans Eysenck, The Dynamics of Anxiety and Hysteria (1957); Hans Eysenck, The Biological Basis of Personality (1967).

relation to the treatment of prisoners included social treatments such as group and milieu therapy.²⁸

Various themes related to the construct of psychopathy were articulated in works of the latter twentieth century. Dr. Shapiro delineated features of what he called the "impulsive style," noting that, "the psychopath . . . exhibits in a thorough and pervasive way what, for others, is only a direction or tendency. He acts on a whim, his aim is the quick, concrete gain, and his interests and talents are in ways and means." Burstein and Fromm described aspects of the "manipulative personality" and "exploitative-sadistic" character, respectively. Perhaps the most influential and detailed clinical account of psychopathy to date was authored by Dr. Cleckley, who described the disorder in his book, *The Mask of Sanity*. The title of Dr. Cleckley's magnum opus reflected his belief that, although the psychopath is not psychotic, often appears superficially well adjusted, and generally is of average or better intelligence, he is nonetheless afflicted with a devastating psychiatric disorder.

Dr. Cleckley proposed, on the basis of his lengthy clinical experience, that psychopaths: generally possess superficial charm and good intelligence; evidence no delusional thinking or other signs of psychosis or irrational thought; are not "nervous" and do not display other indications of neuroses; are unreliable; are habitually untruthful and insincere; lack remorse or shame for their actions when experiencing such emotions would be appropriate; engage in antisocial behavior for unclear or poorly justified reasons; evidence poor judgment and a failure to learn from experience; are pathologically egocentric and unable to love; demonstrate major deficits in their ability to experience emotions; are unable to see or experience themselves as others see them; fail to respond to trust or kindness in interpersonal relationships; engage in outlandish conduct

^{28.} See generally George K. Stürup, Krogede Skoebner (1951); George K. Stürup, Treating the Untreatable (1968).

^{29.} DAVID SHAPIRO, NEUROTIC STYLES 157 (1965).

^{30.} See B. Burstein, The Manipulative Personality, 26 ARCHIVES OF GEN. PSYCHIATRY 318 (1972).

^{31.} See ERICK FROMM, THE ANATOMY OF HUMAN DESTRUCTIVENESS (1973).

^{32.} See Hervey Cleckley, The Mask of Sanity, An Attempt to Reinterpret the So-Called Psychopathic Personality (1941).

when drinking and even when not drinking; rarely commit suicide; are frequently sexually promiscuous and otherwise have an "impersonal, trivial, and poorly integrated" sex life; and fail to adhere to any life plan.³³

Comparing the chronic delinquent to the psychopath, Dr. Cleckley noted:

In repetitive delinquent behavior, the subject often seems to be going a certain distance along the course that a full psychopath follows to the end. In the less severe disorder, antisocial or self-defeating activities are frequently more circumscribed and may stand out against a larger background of successful adaptation. The borderlines between chronic delinquency and what we have called the psychopath merge in this area. Although anxiety, remorse, shame, and other consciously painful subjective responses to undesirable consequences are deficient in both as compared with the normal, this callousness or apathy is far deeper in the psychopath.³⁴

Diverse conceptions of psychopathy have emerged over the past two hundred years. However, most descriptions of the disorder have emphasized both the chronic and often flagrantly antisocial conduct and personality traits (e.g., emotional callousness and pathological narcissism) commonly observed in persons considered psychopathic. At present, it is unclear to what extent the construct of psychopathy can legitimately extend to antisocial children and youth. Recent developments with regard to juvenile psychopathy assessment and research are examined below, following a brief discussion of foundational developments in the adult psychopathy literature.

II. CONTEMPORARY PERSPECTIVES ON PSYCHOPATHY

One of the most significant events in psychopathy research was the publication of the *Psychopathy Checklist* (PCL), available currently in a revised format referred to as the PCL-R.³⁵ The PCL-R

^{33.} Id. at xiv-xv.

^{34.} Id. at 268.

^{35.} See Robert D. Hare et al., Psychopathy and the DSM-IV Criteria for Antisocial

operationalizes psychopathy in a manner generally consistent with the clinical description presented by Dr. Cleckley. The PCL-R consists of twenty items reflecting a variety of personality and behavioral attributes (e.g., glibness and/or superficial charm, a grandiose sense of self-worth, pathological lying, and conning and manipulative behavior) that are each scored from zero (not present) to two (definitely present) by a trained rater. Thus, total PCL-R scores range from zero to forty; scores of thirty or more are generally used to identify adult psychopaths. Ideally, ratings are made on the basis of the findings of a semi-structured interview with the target individual and other persons who have significant knowledge of the individual, such as family members or friends, and a review of available criminal justice/mental health file records. On occasion, the rater only uses file records to assign psychopathy diagnoses.

Factor analytic studies of the PCL-R have consistently identified two independent, though moderately positively correlated (r = 0.5 - 0.6) factors. Factor One—an interpersonal/affective dimension—incorporates items referring to dispositional glibness/superficial charm, a grandiose sense of self-worth, pathological lying, conning/manipulative behavior, lack of remorse or guilt, shallow affect, callousness/lack of empathy, and a failure to accept responsibility for his or her actions. Factor Two includes items reflecting an unstable and antisocial lifestyle, such as those assessing need for stimulation/proneness to boredom, parasitical lifestyle, poor behavioral controls, early life problem behaviors, lack of realistic long-term goals, impulsivity, irresponsibility, a history of juvenile delinquency, and revocation of conditional release. Factor One scores tend to correlate most highly with measures of narcissism and egocentrism, whereas Factor Two scores correlate significantly positively with measures of substance abuse, criminal behavior, and

Personality Disorder, 100 J. ABNORMAL PSYCHOL. 391 (1991).

³⁶ *Id*

^{37.} Robert H. Bodholt et al., Assessing Psychopathy in Adults: The Psychopathy Checklist—Revised and Screening Version, in THE CLINICAL AND FORENSIC ASSESSMENT OF PSYCHOPATHY, supra note 8, at 62.

^{38.} Id.

^{39.} Robert D. Hare, *Psychopathy and Antisocial Personality Disorder: A Case of Diagnostic Confusion*, 13 PSYCHIATRIC TIMES 39 (1996).

Diagnostic and Statistical Manual of Mental Disorders (DSM) Antisocial Personality Disorder (APD) criteria. 40

Among adults, psychopathy is related in an asymmetrical manner to DSM APD criteria. 41 APD criteria require that an individual be eighteen years of age, have met DSM Conduct Disorder (CD) criteria prior to age fifteen, and manifest a "pervasive pattern of disregard for and violation of the rights of others occurring since age [fifteen]" as evidenced by meeting at least three of seven criteria (e.g., reckless disregard for the safety of self or others). 42 Whereas most psychopaths identified using the PCL-R meet DSM APD criteria. most individuals meeting DSM APD criteria do not meet PCL-based psychopathy criteria. Hare reported that although a majority of adult offenders meet APD criteria in most correctional settings, only fifteen to twenty percent meet psychopathy criteria.⁴³ Hare and others contend that the APD criteria embodied in the third and fourth editions of the DSM do not adequately capture the personality features of psychopathy, but instead rely excessively on behavioral criteria, thereby sacrificing construct validity in the interests of diagnostic reliability.44

Studies of the PCL-R indicate that the measure possesses good internal consistency, interrater reliability, and test-retest reliability. Validity assessments indicate that PCL-R scores predict general and violent recidivism⁴⁶ and institutional violence among forensic patients. To date, literally hundreds of studies of adults have used

^{40.} See Bodholt et al., supra note 37, at 60-86; Megan J. Rutherford et al., Psychopathy and Substance Abuse: A Bad Mix, in THE CLINICAL AND FORENSIC ASSESSMENT OF PSYCHOPATHY, supra note 8, at 358.

^{41.} See Hare, supra note 39.

^{42.} Am. PSYCHIATRIC ASS'N, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL Disorders (4th ed., 2000).

^{43.} Hare, *supra* note 39, at 39.

^{44.} *Id.* (citing AM. PSYCHIATRIC ASS'N, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS (3d ed. 1986)); AM. PSYCHIATRIC ASS'N, *supra* note 42.

^{45.} See Bodholt et al., supra note 37.

^{46.} See Randy Salekin et al., Psychopathy and Recidivism Among Female Inmates, 22 LAW & HUM. BEHAV. 109 (1998); Steven Wong, Recidivism and Criminal Career Profiles of Psychopaths: A Longitudinal Study, 24 ISSUES IN CRIMINOLOGICAL & LEGAL PSYCHOL.147 (1995).

^{47.} See Kurt Heilbrun et al., Inpatient and Postdischarge Aggression in Mentally Disordered Offenders: The Role of Psychopathy, 13 J. INTERPERSONAL VIOLENCE 514 (1998); T. Pham et al., Psychopathy and Evaluation of Violent Behavior in a Psychiatric Security

the original PCL, PCL-R, or one of the other versions of the instrument such as the PCL:SV (Screening Version). ⁴⁸ Only recently, however, have efforts been made to apply PCL-based and other psychopathy assessments to antisocial children, adolescent offenders, and members of the general adolescent population.

Investigations of PCL-defined psychopathy in youth commenced with Forth, Hart, and Hare's study of adolescent offenders. 49 PCL-R items nine (i.e., parasitical lifestyle) and seventeen (i.e., many shortterm relationships) were deleted, and the scoring criteria for items eighteen (i.e., juvenile delinquency) and twenty (i.e., revocation of conditional release) were modified to reflect adolescent offenders' more limited opportunities for interaction with the justice system relative to adult offenders.⁵⁰ This eighteen-item modification of the PCL-R was used in a number of studies of adolescents.⁵¹ However. several recent investigations have used the newer twenty-item Psychopathy Checklist: Youth Version (PCL:YV), which is a modified version of the original PCL-R explicitly designed for adolescents.52 As with the PCL-R, factor analytic studies of the PCL:YV have identified two factors—an affective/interpersonal dimension (i.e., Factor One) and an antisocial lifestyle/behavior factor (i.e., Factor Two)—that appear to underlie juvenile psychopathy.⁵³ The alpha and interrater reliability of the PCL:YV

Milieu, 24 L' ENCEPHALE 173 (1998).

^{48.} See Barbara J. Sparrow & Carl B. Gacano, Selected Psychopathy Bibiolography by Subject, in The CLINCIAL AND FORENSIC ASSESSMENT OF PSYCHOPATHY, supra note 8, at 455; Steve Hart et al., Key References Relating to the Study of Psychopathy (2003), at http://www.hare.org/references.

^{49.} Adelle E. Forth et al., Assessment of Psychopathy in Male Young Offenders, 2 PSYCHOL. ASSESSMENT: J. CONSULTING & CLINICAL PSYCHOL. 342 (1990).

^{50.} Adelle E. Forth & Donna L. Mailloux, *Psychopathy in Youth: What Do We Know?, in* THE CLINICAL AND FORENSIC ASSESSMENT OF PSYCHOPATHY, *supra* note 8, at 25.

^{51.} See John F. Edens et al., Assessment of "Juvenile Psychopathy" and Its Association with Violence: A Critical Review, 19 BEHAV. SCI. L. 53 (2001); Daniel Seagrave & Thomas Grisso, Adolescent Development and the Measurement of Juvenile Psychopathy, 26 LAW & HUM. BEHAV. 219 (2002).

^{52.} E.g., Donna L. Mailloux et al., Psychopathy and Substance Use in Adolescent Male Offenders, 81 Psychol. Rep. 529 (1997); Melissa Murdock Hicks et al., Predictions of Violent and Total Infractions Among Institutionalized Male Juvenile Offenders, 28 J. Am. Acad. Psychiatry & L. 183 (2000).

^{53.} See John Randall Brandt et al., Assessment of Psychopathy in a Population of Incarcerated Adolescent Offenders, 9 PSYCHOL. ASSESSMENT 429 (1997); ADELLE FORTH,

appear to be acceptable for Total scores, but more research evaluating the interrater reliability of the subscales is needed. The construct validity of the modified PCL-R and PCL:YV scales has been established in a number of studies of adolescents. However, no widely accepted cutpoints for the diagnosis of juvenile psychopathy have been established for the PCL-based measures. Serious concerns have also been raised regarding the developmental appropriateness of some PCL-YV items, such as those assessing parasitical lifestyle and many short-term relationships. Edens et al. observed that "although the scoring criteria for several problematic items (e.g., *impulsivity*, *irresponsibility*, *lack of goals*, *and need for stimulation/proneness to boredom*) have been revised in an attempt to better apply to adolescents, the stability of these items over significant time periods remains an open issue." 55

Other instruments designed to assess psychopathy in youth are discussed below. Factor analyses of these scales also support a two-factor model of psychopathy similar to that assessed by the various PCL-based measures.⁵⁶

The relationship between DSM-IV CD and juvenile psychopathy parallels that of DSM APD and adult psychopathy. A majority of youth diagnosed as psychopathic meet the more behaviorally-based CD standards, whereas only a minority of youth who meet DSM CD criteria meet criteria for juvenile psychopathy. CD diagnoses are also far more prevalent than psychopathy diagnoses among adolescent offender populations across a variety of juvenile justice settings. 57

Although hundreds of PCL-based studies of adults, and many PCL-based studies of youth, have been published, it is presently

PSYCHOPATHY AND YOUNG OFFENDERS: PREVALENCE, FAMILY BACKGROUND, AND VIOLENCE (1995).

^{54.} See Brandt et al., supra note 53.

^{55.} See Edens et al., supra note 51, at 61.

^{56.} See Paul J. Frick, Juvenile Psychopathy From a Developmental Perspective: Implications for Construct Development and Use in Forensic Assessments, 26 LAW & HUM. BEHAV. 247, 250 (2002); Paul J. Frick et al., Psychopathic Traits and Conduct Problems in Community and Clinic-Referred Samples of Children: Further Development of the Psychopathy Screening Device, 12 PSYCHOL. ASSESSMENT 382 (2000); Paul J. Frick et al., Psychopathy and Conduct Problems in Children, 103 J. ABNORMAL PSYCHOL. 700 (1994); Donald R. Lynam, Pursuing the Psychopath: Capturing the Fledgling Psychopath in a Nomological Net, 106 J. ABNORMAL PSYCHOL. 425 (1997).

^{57.} FORTH, supra note 53, at 35.

unclear whether psychopathy is more appropriately regarded as a discrete disorder or a continuously distributed characteristic. One recent taxometric analysis supported the notion that persistently antisocial youth constitute a naturally occurring, nonarbitrary discrete class (i.e., a "taxon") of youth.⁵⁸ Most studies of youth to date have conducted analyses using psychopathy measures as a continuous, as well as a categorical, variable, implicitly embracing the notion that psychopathic traits may exist on a continuum among youth.

Investigations of juvenile psychopathy commenced in 1990, although research activity in the area has intensified significantly in recent years. Research in adolescents supports a two-factor conceptualization of psychopathy and suggests that psychopathy can be assessed reliably and has clinical utility. Factor One traits reflect the personality features thought to characterize the disorder, whereas Factor Two traits reflect aspects of the antisocial lifestyle that are thought to typify juvenile and adult psychopaths.

III. MEASURES OF JUVENILE PSYCHOPATHY

In addition to the PCL-derived instruments, a number of other measures have been developed to assess juvenile psychopathy. This section briefly discusses these instruments. ⁶⁰

A. Psychopathy Screening Device (PSD)

The PSD is a twenty-item rating scale designed to assess psychopathy in children. Seagrave and Grisso reviewed seven studies that used the PSD with six to thirteen year-olds and one study that used the instrument with youth aged thirteen to eighteen. ⁶¹ Although a self-report version is available, most investigations using the PSD have relied on either parent or teacher reports, or some combination

^{58.} See Tracey A. Skilling et al., Evidence of a Taxon Underlying Serious Antisocial Behavior in Boys, 28 CRIM. JUST. & BEHAV. 450 (2001).

^{59.} See Forth & Mailloux, supra note 50.

^{60.} For comprehensive and erudite descriptions of research relating to these measures, see Edens et al., *supra* note 51; Forth & Mailloux, *supra* note 50; Seagrave & Grisso, *supra* note 51

^{61.} See Seagrave & Grisso, supra note 51.

of the two. Like the PCL:YV, each item is scored on an ordinal scale, ranging from zero (not at all true) to two (definitely true). Factor analyses have identified two factors underlying PSD responses roughly paralleling the two PCL:YV factors: a Callous/Unemotional (CU) factor and an Impulsivity/Conduct Problems (I/CP) factor. Frick, Bodin, and Barry recently reported that a three-factor model might eventually prove most appropriate for assessing juvenile psychopathy with the PSD.⁶² The three-factor model includes a Narcissism factor in addition to the CU and I/CP factors. No specific cutoff scores have been established for the PSD to aid in standardizing psychopathy diagnosis, 63 although a fair number of studies are available that support the construct validity of the overall scale and differential correlates of CU and I/CP subscales. For example, CU traits are associated with a reward-dominant response orientation⁶⁴ and with low levels of fear⁶⁵ in behavior-disordered children. The I/CP scale is significantly positively correlated with measures of DSM CD symptoms and delinquency. 66 As with Factors One and Two of the PCL-R/PCL:YV, the CU and I/CP factors are positively correlated ($r \sim .50$). Alpha reliabilities for the CU and I/CP subscales approximate 0.7 to 0.8.⁶⁷

B. Child Psychopathy Scale (CPS)

Lynam developed the CPS to assess psychopathy using self-report data collected during the Pittsburgh Youth Study of 508 individuals at high risk for delinquency.⁶⁸ Forty-one items drawn from the Child Behavior Checklist⁶⁹ and California Q-sort⁷⁰ were used to

^{62.} Frick et al., Psychopathic Traits, supra note 56.

^{63.} See generally Edens et al., supra note 51.

^{64.} See Bridget S. O'Brien & Paul J. Frick, Reward Dominance: Associations with Anxiety, Conduct Problems, and Psychopathy in Children, 24 J. ABNORMAL CHILD PSYCHOL. 223 (1996).

^{65.} Christopher T. Barry et al., *The Importance of Callous—Unemotional Traits for Extending the Concept of Psychopathy to Children*, 109 J. ABNORMAL PSYCHOL. 335 (2000).

^{66.} See Frick et al., Psychopathy and Conduct, supra note 56.

^{67.} *Id*.

^{68.} See Donald R. Lynam, Early Identification of the Fledgling Psychopath: Locating the Psychopathic Child in the Current Nomenclature, 107 J. ABNORMAL PSYCHOL. 566 (1998); Lynam, supra note 56.

^{69.} See Thomas M. Achenbach, Manual for the Child Behavior Checklist /4-18

operationalize thirteen of the twenty items in the adult PCL-R that were appropriate for youth and for which data were available. Although Lynam contended that the scale yielded a two-factor solution, 71 the two factors were highly correlated (r = .95); thus, only total scores were included in the reported analyses. CPS scores significantly predicted delinquency at ages twelve to thirteen, even after demographic, intelligence, prior offending, and socioeconomic measures were controlled for in hierarchical multiple regression analyses. 72 CPS scores were also correlated (r's = .25 to .32) with a variety of impulsivity measures. 73

C. P-Scan

The Hare P-Scan: Research Version is a ninety-item scale yielding a total score and three factor scores reflecting "lifestyle," "interpersonal," and "affective" dimensions of psychopathy. Individual items are scored from zero to two and the instrument is designed for respondents ages thirteen and older. Few data are available regarding the instrument's reliability or validity, and concerns have been expressed about premature application of the instrument by nonclinicians working in applied settings. Although the instrument is intended for use only to identify individuals who may require further assessment for psychopathy, the potential for misuse of this poorly validated instrument is worrisome.

D. Other Self-Report Measures

The Psychopathic Personality Inventory (PPI)⁷⁶ is a 187-item instrument constructed to assess psychopathic personality features in

AND 1991 PROFILE (1991).

^{70.} See Jack Block & Jeanne Block, the California Child Q-Set (1980).

^{71.} Lynam, supra note 56, at 428.

^{72.} Id.

^{73.} Id.

^{74.} ROBERT D. HARE & HUGUES F. HERVE, HARE P-SCAN: RESEARCH VERSION MANUAL I (1999).

^{75.} See Edens et al., supra note 51.

^{76.} See Scott O. Lilienfeld & Brian P. Andrews, Development and Preliminary Validation of a Self-Report Measure of Psychopathic Personality Traits in Noncriminal Populations, 66 J. Personality Assessment 488 (1996).

general populations of older adolescents and adults. The PPI is a self-report measure that correlates moderately highly with other measures of psychopathy and related DSM Cluster B personality disorders. Studies of youth offenders suggest that the measure correlates significantly positively with PCL-based measures of psychopathy and criminal behavior assessments. ⁷⁸

Other self-report measures have been used to assess psychopathy or related constructs in youth, but these instruments are of limited utility and generally, "it is recommended that clinicians not use self-report measures, particularly the MMPI/MMPI-A, to assess psychopathic traits." The MMPI-A is the adolescent version of the Minnesota Multiphasic Personality Inventory, perhaps the most widely used psychological inventory in mental health practice today. Prior studies have shown little or no significant associations between MMPI-based measures and the modified eighteen-item PCL for adolescents or PCL:YV.

Although several promising approaches to psychopathy assessment are currently available, the PCL-derived assessments of adolescent psychopathy are the best studied with regard to psychometric properties including predictive and concurrent validity. Available instruments yield a two-factor solution when scale items are subjected to factor analysis, suggesting that moderately

^{77.} See M.E. Hamburger et al., Psychopathy, Gender, and Gender Roles: Implications for Antisocial and Histronic Personality Disorders, 10 J. PERSONALITY DISORDERS 41 (1996); Lilienfeld & Andrews, supra note 76; Scott Lilienfeld et al., Psychopathy and Undersensitivity to Threat Cues: A Test of Gray's Model, Presentation at the Annual Meeting of the Association for the Advancement of Behavior Therapy (1998) (on file with authors).

^{78.} See John F. Edens et al., Validation of the Psychopathic Personality Inventory in Correctional and Community Samples, Presentation at the 106th Annual Conference of the American Psychological Association (1998) (on file with authors); Ann-Marie R. Sandoval et al., Construct Validity of the Psychopathic Personality Inventory in a Correctional Sample, 74 J. Personality Assessment 262 (2000); Norman G. Poythress et al., Criterion-Related Validity of the Psychopathic Personality Inventory in a Prison Sample, 10 PSYCHOL. ASSESSMENT 426 (1998).

^{79.} Forth & Mailloux, supra note 50, at 34.

^{80.} See Brandt et al., supra note 53; Marie P. Hume et al., Examination of the MMPI-A for the Assessment of Psychopathy in Incarcerated Adolescent Male Offenders, 40 INT'L J. OFFENDER THERAPY & COMPARATIVE CRIMINOLOGY 224 (1996); Lynne E. Sullivan, Assessment of Psychopathy Using the MMPI-A: Validity in Male Adolescent Forensic Patients (1996) (unpublished M.A. thesis, Simon Fraser University) (on file with Simon Fraser University Library).

orthogonal affective and behavioral dimensions underlie the superordinate construct of juvenile psychopathy. Most studies to date have analyzed adolescent psychopathy scores in a continuous manner, in the absence of well-validated cutpoints for diagnosis of the disorder ⁸¹

IV. CHARACTERISTICS OF PSYCHOPATHIC YOUTH

Juvenile psychopathy has been evaluated in relation to a number of demographic, socio-developmental, psychobiological, and criminal-offending dimensions. This section reviews recent findings across a range of assessment domains.

A. Demographic Factors

Relatively few studies have examined gender differences in relation to adolescent psychopathy. Gretton and Stanford et al. studied incarcerated youth and adolescent inpatients, respectively. Both studies found that, on average, females had lower psychopathy scores than males; however, only in the Stanford investigation was the difference statistically significant, perhaps due to the small number of subjects participating in these studies. But a stanford investigation was stan

Five studies comparing Caucasian adolescents to Native-Canadian, African-American, and Hispanic youth reported nonsignificant differences with regard to psychopathy. 85 Forth et al. found significantly lower psychopathy scores for Native-Canadian

^{81.} See Lynam, supra note 56.

^{82.} See Matthew S. Stanford et al., Multi-Impulsivity Within an Adolescent Psychiatric Population, 16 PERSONALITY & INDIVIDUAL DIFFERENCES 395 (1994); Heather M. Gretton, Psychopathy and Recidivism in Adolescence: A Ten-Year Retrospective Follow-Up (1998) (unpublished Ph.D. dissertation, University of British Columbia) (on file with the University of British Columbia Library).

^{83.} Stanford et al., supra note 82.

^{84.} See Forth & Mailloux, supra note 50, at 31.

^{85.} See Brandt et al., supra note 53; Hume et al., supra note 80; Michelle L. McBride, Individual and Familial Risk Ractors for Adolescent Psychopathy (1998) (unpublished Ph.D. dissertation, University of British Columbia) (on file with the University of British Columbia Library); Wade C. Myers et al., Adolescent Psychopathy in Relation to Delinquent Behaviors, Conduct Disorders, and Personality Disorders, 40 J. FORENSIC SCI. 435 (1995).

than Caucasian youth. 86 Cross-sectional studies examining the relationship between age and psychopathy among adolescents have not identified significant associations. 87

B. Substance Abuse

Clinical lore strongly supports an association between substance psychopathy. 88 However, research investigating psychopathy and substance abuse in adults and adolescents is limited. Rutherford, Alterman, and Cacciola reviewed the adult psychopathy literature and concluded that, in general, there are moderate associations between both the PCL-R Total and Factor Two (i.e., Antisocial Lifestyle) subscale scores with measures of substance abuse and dependence.⁸⁹ For example, Hart and Hare reported correlations of r = .31 and r = .40, respectively, for PCL-R Total and Factor Two scores and a measure of drug abuse/dependence symptoms among eighty forensic psychiatric patients. 90 Smith and Newman found significantly higher rates of lifetime alcohol abuse/dependence and drug abuse/dependence among psychopathic Wisconsin inmates than among their nonpsychopathic cohorts.⁹¹ PCL-R Total and Factor Two scores were significantly inversely associated with age at first intoxication and first arrest, whereas Factor One scores were significantly inversely associated only with age at first arrest. 92 Rutherford et al. concluded that "Antisocial Lifestyle [i.e., Factor Two] consistently had a stronger relationship

^{86.} See Forth et al., supra note 49.

^{87.} See Brandt et al., supra note 53; Forth et al., supra note 49; Adelle E. Forth & Heather C. Burke, Psychopathy in Adolescence: Assessment, Violence, and Developmental Precursors, in PSYCHOPATHY: THEORY, RESEARCH, AND IMPLICATIONS FOR SOCIETY 205 (David J. Cooke et al. eds., 1998).

^{88.} CLECKLEY, supra note 32, at 355.

^{89.} Rutherford et al., supra note 40, at 353.

^{90.} Stephen D. Hart & Robert D. Hare, *Discriminant Validity of the Psychopathy Checklist in a Forensic Psychiatric Population*, 1 PSYCHOL. ASSESSMENT 211, 211 (1989).

^{91.} See Stevens S. Smith & Joseph P. Newman, Alcohol and Drug Abuse-Dependence Disorders in Psychopathic and Nonpsychopathic Criminal Offenders, 99 J. ABNORMAL PSYCHOL. 430, 430 (1990).

^{92.} Id.

than Psychopathic Personality Traits [i.e., Factor One] to alcohol and drug abuse/dependence among male offenders." ⁹³

Studies of adolescent psychopathy and substance abuse report mixed findings. Mailloux, Forth, and Kroner examined the relationship between PCL:YV scores and measures of lifetime alcohol and drug problems.⁹⁴ Total and Factor Two scores, respectively, were significantly related to Michigan Alcoholism Screening Test (MAST) (r's = .46 and .41) and Drug Abuse Screening Test (DAST) (r's = .42 and .48) scores, age at drug use initiation (r's = -.50 and -.50), and number of drugs tried (r's = .56 and .54).95 Factor One scores were not significantly correlated with MAST and DAST scores and had lower, although statistically significant, associations with age of onset of drug use (r = -.39) and number of illicit drugs tried $(r = .46)^{.96}$ Brandt et al. studied 130 adolescent offenders with multiple felony convictions and did not find PCL-R Total, Factor One, or Factor Two scores to be significantly associated with a measure of substance abuse based on file records, although the assessment of substance abuse was relatively crude.⁹⁷

Forth also examined associations between PCL:YV scores and the MAST and DAST in a community youth sample and a sample of young offenders. Total (r = .48), Factor One (r = .33), and Factor Two (r = .47) scores were significantly associated with MAST scores among community youth. Similar associations were observed between Total (r = .56), Factor One (r = .41), and Factor Two (r = .52) scores and the DAST measure of lifetime drug-related problems among community youth. Only Total and Factor Two scores, respectively, were significantly associated with MAST (r's = .23) and .28 and .36 among the sample of

^{93.} Rutherford et al., supra note 40, at 354.

^{94.} See Mailloux et al., supra note 52.

^{95.} Id. at 530.

^{96.} *Id*.

^{97.} Brandt et al., *supra* note 53, at 432.

^{98.} See FORTH, supra note 53.

^{99.} Id at 22.

^{100.} Id.

serious youth offenders and the observed correlations were lower for the offender group than the community sample. 101

In sum, findings with adolescent offenders approximate those obtained with adult offenders/substance abusers with regard to the relationship of PCL-R/PCL:YV Total and Factor scores to substance abuse measures. Factor Two traits are more consistently and strongly associated with substance abuse than are Factor One traits. The causal nature of the relationship between Factor Two traits and substance abuse is unclear. It is possible that substance abuse is one among many manifestations of an impulsive, risk-taking, and sensation-seeking temperament and/or plays an important, independent role in the development of various antisocial outcomes. That is, early substance abuse might reflect the diathesis for an antisocial lifestyle reflected in the Factor Two measure, but contribute to further and more egregious conduct by disinhibiting behavior and impairing judgment.

C. Moral Reasoning

The conflation of psychopathy with moral turpitude can be traced back two centuries to the notion of moral insanity. Early studies of moral reasoning compared psychopathic youth (variously defined) to other delinquents 103 or to non-incarcerated, non-delinquent youth, 104 finding more rudimentary levels of moral reasoning in psychopathic youth. Jurkovic and Prentice, 105 and Lee and Prentice 106 found lower levels of moral development in psychopathic youth compared to normal youth, but mixed findings with regard to the moral reasoning of psychopathic and other delinquent youth. Lee and Prentice

102. See Rutherford et al., supra note 40.

^{101.} Id. at 21.

^{103.} See Eugene M. Fodor, Moral Development and Parent Behavior Antecedents in Adolescent Psychopaths, 122 J. GENETIC PSYCHOL. 37 (1973).

^{104.} See Anthony F. Campagna & Susan Harter, Moral Judgment in Sociopathic and Normal Children, 31 J. PERSONALITY & Soc. PSYCHOL. 199 (1975).

^{105.} See generally Gregory J. Jurkovic & Norman M. Prentice, Relation of Moral and Cognitive Development to Dimensions of Juvenile Delinquency, 86 J. ABNORMAL PSYCHOL. 414 (1977).

^{106.} See generally Ming Lee & Norman M. Prentice, Interrelations of Empathy, Cognition, and Moral Reasoning with Dimensions of Juvenile Delinquency, 16 J. ABNORMAL CHILD PSYCHOL. 127-39 (1988).

identified nonsignificant differences between psychopathic and other delinquent youth, 107 whereas Jurkovic and Prentice found the moral reasoning of psychopathic youth significantly less developed than that of other delinquent, but non-psychopathic, youth. 108

and Walker compared fourteen psychopathic Trevethan adolescents to fifteen delinquent but non-psychopathic youth and fifteen normal youth recruited from a local high school with regard to their stage of moral development and moral orientation. 109 Psychopathic youth were nearly one year older, on average, than youth in the delinquent and normal groups. 110 Participants were asked to respond to hypothetical and real-life moral dilemmas during a lengthy interview. 111 Psychopathic youth differed significantly from normal youth, but not from other delinquents, with regard to their stage of moral reasoning. 112 Psychopathic youth did, however, display a significantly more "egoistic utilitarian" moral orientation than did normal youth or other delinquent youth in response to reallife moral dilemmas. 113 Trevethan and Walker concluded that "although there were no differences across groups when discussing hypothetical dilemmas, when it was a situation in which they had actually been involved, psychopaths more frequently expressed the moral legitimacy of concerns for themselves."114

Blair compared sixteen psychopathic and sixteen non-psychopathic residents of a school for behaviorally and emotionally disturbed youth using a two-by-two factorial design with psychopathy status and a moral versus conventional transgression

^{107.} See Jurkovic & Prentice, supra note 105.

^{108.} Id.

^{109.} See Shelley D. Trevethan & Lawrence J. Walker, Hypothetical Versus Real-Life Moral Reasoning Among Psychopathic and Delinquent Youth, 1 DEVELOPMENT & PSYCHOPATHOLOGY 91, 94-95 (1989); cf. Lawrence Kohlberg, Moral Stages and Moralization: The Cognitive-Developmental Approach, in MORAL DEVELOPMENT AND BEHAVIOR: THEORY, RESEARCH, AND SOCIAL ISSUES (T. Lickona ed., 1976); Lawrence Kohlberg, The Cognitive Developmental Approach to Behavior Disorders: A Study of the Development of Moral Reasoning in Delinquents, in COGNITIVE DEFECTS IN THE DEVELOPMENT OF MENTAL ILLNESS 207 (George Serban ed., 1978).

^{110.} See Trevethan & Waltzer, supra note 109, at 95.

^{111.} Id.

^{112.} Id. at 98.

^{113.} Id. at 99.

^{114.} Id. at 100.

judgment task as the two factors, and participants' responses to the transgression task and emotions attributed to the task-story-protagonists as the dependent variables. Psychopathic youth were significantly more likely than non-psychopathic youth to consider moral transgressions acceptable if there were no formal rules prohibiting the transgression. Only twenty-five percent of the judgment justifications provided by psychopathic youth concerned the welfare of others, compared to forty-five percent of justifications provided by non-psychopathic youth (p < .07). Psychopathic youth were also less likely to attribute guilt to task-story characters, suggesting they were less sensitive to or aware of this potential emotional response. 118

Studies to date support the notion that psychopathic youth function at a less ethically-developed level than do adolescent nonoffenders, although findings pertaining to differences between psychopathic and other delinquent youth are less consistent. In general, the methodological limitations and mixed findings of the scant available research indicate a need for further research in this area. Saltaris reviewed research suggesting that the capacity to feel empathy for others and to discern others' emotional states (i.e., "perspective taking") develop very early in life, vary greatly across individuals, and are potentially key determinants of psychopathic (and altruistic) orientation. Longitudinal studies of perspective-taking and empathy commencing very early in the lives of high risk youth would contribute significantly to current knowledge regarding the developmental origins of the callousness and narcissism observed in adolescent and adult psychopaths.

^{115.} See R.J.R. Blair, Moral Reasoning and the Child with Psychopathic Tendencies, 22 Personality & Individual Differences 731 (1997).

^{116.} Id. at 735.

^{117.} Id.

^{118.} Id.

^{119.} See Christina Saltaris, Psychopathy in Juvenile Offenders: Can Temperament and Attachment Be Considered as Robust Developmental Precursors?, 22 CLINICAL PSYCHOL. REV. 729 (2002).

D. Child Abuse and Poor Parenting

Several investigators have examined the role of adverse early life experiences, such as child abuse, in the development of psychopathy. Forth and Tobin found high rates of lifetime child abuse in ninety-five psychopathic and non-psychopathic incarcerated male youth, although rates in the two groups did not differ significantly. Psychopathic and non-psychopathic offenders also did not differ significantly with regard to their histories of specific forms of abuse, including physical, emotional, or sexual abuse or neglect. Reports of having experienced or witnessed parental violence also did not significantly predict PCL-R scores.

McBride found that a history of physical abuse and parental antisocial characteristics were associated with psychopathy among 239 male adolescent sex offenders. ¹²¹ A related investigation of fiftyfour adolescent male offenders identified a significant association between a history of physical abuse, having received poor parenting, and adolescent psychopathy. 122 McBride and Hare reported that PCL-SV scores were significantly positively correlated with a history of physical (r = .33) and sexual (r = .16) abuse. 123 Together, parental adversity (a composite measure of parental deviance), a history of physical abuse, and a diagnosis of ADHD explained twenty-two percent of the variance in psychopathy scores. Burke and Forth found that a global index of family background variables, including variables such as sexual abuse or parental alcoholism, significantly related to Factor Two psychopathy scores among a sample of 106 young male offenders, but not with PCL:YV Total or Factor One scores. None of the ten family background variables significantly predicted Total, Factor One, or Factor Two scores among the young offender sample. 124

^{120.} Adelle E. Forth & Fred Tobin, *Psychopathy and Young Offenders: Rates of Childhood Maltreatment*, 7 F. ON CORRECTIONS RES. 20, 21 (1996).

^{121.} McBride, *supra* note 85, at 49 tbl.5 (finding a history of physical abuse, but not other forms of abuse, contributed to these results).

^{122.} Id. at 50.

^{123.} Michelle L. McBride & Robert D. Hare, Precursors of Psychopathy and Recidivism (1996) (unpublished manuscript, on file with the Department of Psychology, University of British Columbia).

^{124.} Heather C. Burke & Adelle E. Forth, Psychopathy and Familial Experience as

Forth and Burke reviewed studies of developmental correlates of juvenile psychopathy, concluding that "relatively little research has examined whether psychopaths have dysfunctional family backgrounds. The research that has been done, though, has shown no decisive link between family history and the presence of psychopathy in adults."125 With regard to specific influences, they concluded:

[S]everal family background factors are linked to psychopathy: parental rejection, parental antisocial personality, parental substance abuse, inconsistent discipline, lack of supervision, parental separation, physical abuse, and sexual abuse. However, for many of these variables (parental separation, parental rejection, physical abuse, and sexual abuse) the relationship to psychopathy is not consistently found across different samples-with perhaps one-third or fewer of the investigations of these variables showing a significant relationship with psychopathy. The following factors seem to have a stronger link: having an antisocial or psychopathic parent. exposure parental alcoholism, inconsistent to discipline, and a lack of supervision. At least half of the studies variables demonstrated a examining these significant association with psychopathy. 126

Gretton reported that psychopathic youth offenders were, on average, separated at significantly younger ages from their biological mothers and fathers than were non-psychopathic adolescent offenders, although no differences were found with regard to the prevalence of childhood abuse. 127

Inconsistent findings in relation to the role of parenting practices in the development of juvenile psychopathy may be attributable to failure to distinguish between correlates of the two factors thought to comprise the disorder. Wooten, Frick, Shelton, and Silverhorn predicted that youth high in CU traits would not be substantially

127. See Gretton, supra note 82, at 105.

Antecedents to Violence: A Cross-Sectional Study of Young Offenders and Non-Offending Youth 1 (1996) (unpublished manuscript).

^{125.} Forth & Burke, *supra* note 87, at 219.

^{126.} Id. at 223.

influenced by different parenting practices with regard to the development of CD symptoms, whereas youth low in CU traits would experience differential outcomes related to parenting practices. Wooten et al. found that the association between ineffective parenting and conduct problems was moderated by the presence of CU traits in the child. Children with high prevalence of CU traits exhibited high rates of conduct problems, regardless of the quality of parenting they experienced. Past studies may have underestimated the association between parenting practices and conduct problems by failing to distinguish between youth low and high in CU traits.

E. Violent and Institutional Offending

Current research supports a relatively robust association between psychopathy and violent offending for adult males. Edens et al. reviewed eleven studies of adolescent offenders evaluating this relationship that used a variety of psychopathy measures, research designs, and violence outcomes. Overall, findings across studies were remarkably consistent, indicating that total psychopathy scores are moderately associated ($r \sim .30$) with measures of violence, with most correlations ranging from .20 to .40. Hard Brandt et al. Total scores were significantly related to time-to-violent-reoffending and number of charges/convictions for violent reoffenses, respectively, among incarcerated delinquents released to the community. Five studies assessed the relationship of the modified PCL-R to indices of institutional misbehavior and infractions. Brandt et al. found moderate associations between PCL-R scores and measures of verbal (r = .31) and physical (r = .28)

^{128.} See Jane M. Wooten et al., Ineffective Parenting and Childhood Conduct Problems: The Moderating Role of Callous-Unemotional Traits, 65 J. CONSULTING & CLINICAL PSYCHOL. 301 (1997).

^{129.} Id. at 305.

^{130.} Id.

^{131.} Id.

^{132.} See Bodholt et al., supra note 37.

^{133.} See Edens et al., supra note 51.

^{134.} Id. at 71.

^{135.} Brandt et al., supra note 53, at 429.

^{136.} Forth et al., supra note 49.

misbehavior.¹³⁷ Edens et al. found a significant correlation of .28 between PCL-R Total scores and a combined measure of verbal and physical institutional misbehavior in a sample of fifty youthful inmates.¹³⁸ Significant associations were also identified between PCL-R scores and institutional charges for violent/aggressive behavior (r = .46),¹³⁹ violent institutional infractions (r = .39) for African American youth),¹⁴⁰ and physically aggressive institutional infractions (r = .28).¹⁴¹

The relationship of juvenile psychopathy to measures of verbal and physical aggression parallels that identified in the adult psychopathy literature in direction and magnitude. The longitudinal stability of psychopathic characteristics identified early in life has not been established and, for this reason, Edens et al. cautioned against the premature application of psychopathy measures for purposes of long-term prediction or decision-making with long-term consequences. Future investigations must elucidate the respective independent and interactive roles of Factor One and Factor Two traits in violent offending. Forth identified substantially stronger associations of Factor Two traits to a variety of criminal offending measures (e.g., age of onset of violent and nonviolent offending) compared to Factor One traits, although significant associations of Factor One traits to number (r = .24) and variety (r = .22) of offenses were observed. It is a solution of the same of the property of the same of the psychopathy is a solution of the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy in the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy is a solution of the psychopathy in the psychopathy in the psychopathy in the psychopathy is psychopathy in the psychopathy in the psychopathy is psychopathy in

Future studies should examine the interactive effects of Factor One and Factor Two traits on criminal behavior, particularly violence. They should also examine whether or not adolescent psychopaths commit more serious and/or instrumental violence compared to other youth offenders who engage in similar classes of crime. In summary, qualitative assessments of differences in the

^{137.} Brandt et al., supra note 53, at 429.

^{138.} John F. Edens et al., *Identifying Inmates At Risk for Disciplinary Infractions: A Comparison of Two Measures of Psychopathy*, 17 BEHAV. SCI. & L. 435, 435 (1999).

^{139.} See Forth et al., supra note 49, at 342.

^{140.} See Hicks et al., supra note 52, at 783.

^{141.} Richard Rogers et al., *Predictors of Adolescent Psychopathy: Oppositional and Conduct-Disordered Symptoms*, 25 J. AM. ACAD. PSYCHIATRY & L. 261, 267 (1997).

^{142.} Edens et al., *supra* note 51, at 76-77.

^{143.} Forth & Mailloux, supra note 50, at 21-22.

nature of criminal offending by psychopathic and non-psychopathic youth should be undertaken.

F. Other Criminal Behavior

Measures of juvenile psychopathy are associated with many aspects of juvenile offending. Brandt et al. found PCL-R Total, Factor One and Factor Two scores significantly inversely correlated with age at first arrest and significantly positively related to number of prior incarcerations and crime severity in a sample of 130 adolescent offenders. 144 Ridenour, Marchant, and Dean reported that PCL-R scores predicted future sentencing rates of a sample of adolescent offenders beyond a baseline number of delinquency charges and a continuous measure of disruptive behavior, whereas DSM CD diagnoses did not. 145 Christian, Frick, Hill, Tyler, and Frazer found that a psychopathic group of children, defined by their elevated scores on the PSD CU and I/CP scales, had higher rates of lifetime school suspensions (55%), police contacts (36%), and parental psychopathy (40%), than youth who had low scores on both scales or low scores on one scale and elevated scores on another. 146 Lynam reported that CPS scores were positively related to seriousness of theft (r = .26) and seriousness of violence (r = .32)scores, rates of general delinquency at age ten (r = .32), and to the variety (r = .19) and seriousness (r = .39) of delinquency at age thirteen among community youth at high risk for delinquency. 147 Significant associations of CPS scores with measures of impulsivity and aggressiveness were also noted. 148 Other studies indicate that psychopathic youth experience an earlier onset of criminal offending, ¹⁴⁹ engage in more frequent criminal behavior, ¹⁵⁰ and are

^{144.} Brandt et al., supra note 53, at 432.

^{145.} Ty A. Ridenour et al., Is the Revised Psychopathy Checklist Clinically Useful for Adolescents?, 19 J. PSYCHOEDUCATIONAL ASSESSMENT 227 (2001).

^{146.} Rachel E. Christian et al., *Psychopathy and Conduct Problems in Children: II. Implications for Subtyping Children with Conduct Problems*, 26 J. Am. ACAD. CHILD & ADOLESCENT PSYCHIATRY 233, 239 (1997).

^{147.} Lynam, supra note 56, at 430.

^{148.} Id. at 430-33.

^{149.} See McBride & Hare, supra note 123; McBride, supra note 85.

^{150.} See Gretton, supra note 82.

more likely to engage in intentional self-injurious behaviors¹⁵¹ than non-psychopathic adolescent offenders.¹⁵²

G. Comorbid Psychopathology

Clinicians are understandably reluctant to diagnose children or adolescents with personality disorders given the many developmental transitions youth pass through that can produce disturbances mimicking personality disorder and the uncertain stability of any identified perturbations. DSM-IV cautions:

[P]ersonality disorder categories may be applied to children or adolescents in those relatively unusual instances in which the individual's particular maladaptive personality traits appear to be pervasive, persistent, and unlikely to be limited to a particular developmental stage or an episode of an Axis I disorder. It should be recognized that the traits of a Personality Disorder that appear in childhood will often not persist unchanged into adulthood. ¹⁵³

Of course, it is often far from clear which signs and symptoms of personality disorder in youth are likely to reflect the presence of a relatively enduring personality dysfunction.

One of relatively few studies to examine comorbid personality disorders in relation to adolescent psychopathy was the Myers et al. evaluation of thirty consecutive youth admitted to an adolescent inpatient psychiatric program (M age = 15.3, SD = .99). ¹⁵⁴ Youth completed standardized semi-structured interviews for the assessment of DSM-IV Axis I and Axis II disorders. ¹⁵⁵ Youth diagnosed with Conduct (N = 21), Narcissistic (N = 4), and Sadistic (N = 2) Personality Disorders had the highest PCL-R scores—scores that were significantly higher than those of study participants without such diagnoses. Myers et al. noted that adolescents diagnosed with Narcissistic Personality Disorder had the most extreme PCL-R

^{151.} Id.

^{152.} See generally Forth & Mailloux, supra note 50.

^{153.} AM. PSYCHIATRIC ASS'N, supra note 42, at 687.

^{154.} See Myers et al., supra note 85, at 436.

^{155.} AM. PSYCHIATRIC ASS'N, supra note 42.

elevations, commenting that "psychopathy and narcissistic personality disorder share common ground in the areas of lack of empathy, exploitativeness, grandiose sense of self, feelings of entitlement, and a need for attention or stimulation."¹⁵⁶

Myers and Blashfield examined fourteen juvenile sexual-homicide offenders, reporting that they averaged 2.3 DSM Axis I and 1.9 Axis II (i.e., personality) disorders per person. Substance Use Disorders (43%), ADHD (21%), and Schizoid (38%), Schizotypal (38%) and Sadistic (31%) Personality Disorders predominated. PCL-R scores were elevated (i.e., > 20) in twelve of the fourteen youth. Contrary to expectation, Cluster A personality disorders were more prevalent than Cluster B disorders in this sample and were reflected in the paranoid ideation, odd beliefs, and social withdrawal exhibited by many of these youth. Few, if any, studies have examined the relationship of Factor One and Factor Two subscales to personality disorders in youth offenders.

Many theorists speculate that psychopaths have low levels of fear and anxiety that impair their ability to learn from aversive experiences. Lynam found that psychopathy scores were significantly inversely associated with measures of anxiety, social withdrawal, and internalizing disorders in a large sample of high-risk community youth. Frick also found a negative association (r = -28) between symptoms of negative affect (including anxiety) and scores on the PSD CU subscale, when symptoms of CD were controlled for in the analyses. The correlation between CD and anxiety symptoms was .51. The correlation between CD and anxiety symptoms was .51.

^{156.} Myers et al., *supra* note 85, at 436.

^{157.} See Wade C. Myers & Roger Blashfield, Psychopathy and Personality in Juvenile Sexual Homicide Offenders, 25 J. Am. ACAD. PSYCHIATRY & L. 497, 500, 502 (1997).

^{158.} Id. at 501.

^{159.} Id.

^{160.} Id. at 502.

^{161.} See DAVID T. LYKKEN, THE ANTISOCIAL PERSONALITIES (1995).

^{162.} Lynam, *supra* note 56, at 432.

^{163.} Paul J. Frick, Callous-Unemotional Traits and Conduct Problems: A Two-Factor Model of Psychopathy in Children, 24 ISSUES IN CRIMINOLOGICAL & LEGAL PSYCHOL., 47 (1995).

^{164.} Id. at 50.

In practical terms, this means that as the number of conduct problems increased, a child exhibited more distress or anxiety. However, when one equates for the number of conduct problems a child exhibits, a child with high scores on the CU scale will show less distress or anxiety than those with lower scores. ¹⁶⁵

Ample evidence exists to support the association of comorbid ADHD/CD with juvenile psychopathy. McBride observed that "a comorbid pattern of HIA [Hyperactivity-Impulsivity-Attentional Deficits] and CP [Conduct Problems] is associated with an early onset of disruptive behavior, aggression, and an offending pattern marked by versatility and persistence.... [T]he pattern of their offending appears to be topographically similar to that uniquely associated with psychopathy."166 McBurnett and Pfiffner noted that the arousal deficits and neuropsychological impairments observed in individuals with comorbid ADHD/CD might both play a role in antisocial behavior. 167 Vitelli found that adult inmates with histories of ADHD/CD were significantly more likely than inmates with a history of only CD to be diagnosed with APD and psychopathy as adults and to have a history of committing violent acts in childhood. 168 Recent findings provide further support for the notion that comorbid ADHD/CD is a particularly disabling syndrome associated with psychopathy-like features and far poorer outcomes than either disorder in isolation. 169

Current findings are difficult to interpret with regard to comorbid personality disorders observed in psychopathic adolescents. There is some evidence for elevated rates of Cluster B personality disorders,

^{165.} Id. at 47.

^{166.} McBride, supra note 85, at 26.

^{167.} Keith McBurnett & Linda Pfiffner, Comorbidities and Biological Correlates of Conduct Disorder, in PSYCHOPATHY: THEORY, RESEARCH, AND IMPLICATIONS FOR SOCIETY, supra note 87, at 193.

^{168.} Romeo Vitelli, *Childhood Disruptive Behavior Disorders and Adult Psychopathy*, 16 Am. J. FORENSIC PSYCHOL. 29, 33 (1998).

^{169.} See Donald R. Lynam, Early Identification of Chronic Offenders: Who Is the Fledgling Psychopath?, 120 PSYCHOL. BULL. 209 (1996); Lynam, supra note 68; Donald R. Lynam, Fledgling Psychopathy: A View from Personality Theory, 26 LAW & HUM. BEHAV. 255 (2002); McBurnett & Pfiffner, supra note 167; Vitelli, supra note 168.

such as Narcissistic Personality Disorder, ¹⁷⁰ and Cluster A personality disorders, such as Schizoid and Schizotypal Personality Disorders. ¹⁷¹ Research supports an association between comorbid ADHD/CD and juvenile psychopathy. Levels of psychopathy and anxiety appear to be inversely correlated in antisocial youth, although current finds are difficult to interpret given widely varying definitions and measures of anxiety.

H. Reward Dependence

A number of studies have examined antisocial adolescents' ability to modulate previously rewarded responses in the context of changing contingencies of reinforcement. Theorists testing predictions derived from Gray's neurobiological model of personality have hypothesized that "antisocial individuals would have a 'reward-dominant' style in which their behavior is more dependent on appetitive drives than on avoidance of punishment ... one would predict that antisocial individuals would be more likely than nonantisocial individuals to persist in a previously rewarded response, even if the rate of punishment for this response increased."

Recent investigations lend credence to the notion that psychopathic youth manifest a reward-dominant response style. O'Brien and Frick asked 132 youth ages six to thirteen (ninety-two clinic children and forty normal controls) to complete four computer games with three potential levels of prizes attainable based on cumulative point totals. Participants began each game with fifty

^{170.} See generally Myers et al., supra note 85.

^{171.} See Myers & Blashfield, supra note 157.

^{172.} See Timothy K. Daughtery & Herbert C. Quay, Response Perseveration and Delayed Responding in Childhood Behavior Disorders, 32 J. CHILD PSYCHOL. & PSYCHIATRY 453 (1991); Joseph P. Newman et al., Passive Avoidance in Syndromes of Disinhibition: Psychopathy and Extraversion, 48 J. PERSONALITY & SOC. PSYCHOL. 1316 (1985); B.S. O'Brien et al., Reward Dominance: Associations with Anxiety, Conduct Problems, and Psychopathy in Children, 16 J. PSYCHOPATHOLOGY & BEHAV. ASSESSMENT 131 (1994); Angela Scerbo et al., Reward Dominance and Passive Avoidance Learning in Adolescent Psychopaths, 18 J. ABNORMAL CHILD PSYCHOL. 451 (1990); Steven K. Shapiro et al., Response Perseveration and Delayed Responding in Undersocialized Aggressive Conduct Disorder, 97 J. ABNORMAL PSYCHOL. 371 (1988).

^{173.} O'Brien & Frick, supra note 64, at 224.

points and had a point added or subtracted from their point total following each trial.¹⁷⁴ Across the one hundred possible trials, the rate of rewarded trials per ten trials declined from ninety percent for the first ten trials to zero percent for the last ten trials, and was independent of subjects' actual responses.¹⁷⁵ The total number of trials-played served as the dependent measure.

Children with high scores on the PSD CU subscale and no comorbid anxiety disorder displayed the most reward-dependent response orientations, compared to several other groups of clinic and community children with varying constellations of anxiety symptoms, conduct symptoms, and no symptoms. Anxiety disorders appeared to moderate the relationship between conduct problems/psychopathy and reward-dominance, such that more anxious youth with conduct problems or psychopathy displayed a significantly less reward-dominant response style than did comparable nonanxious youth. Psychopathic youth without anxiety disorders persisted in responding significantly longer than any other subgroup of youth offenders when responses were punished.

Using a similar experimental paradigm, Lynam found that youth with both HIA impairments and conduct problems displayed significantly more reward-dominance than did youth with only HIA problems, only conduct problems, or neither set of problems.¹⁷⁹ Lynam concluded that

[T]he present results are consistent with theories that identify deficits in response modulation . . . as the fundamental deficit in psychopathy. Although the response-modulation hypothesis is a somewhat narrower conception than the reward-dominance hypothesis, both suggest that the primary deficit in psychopathy involves a disregulation of behavior in the face of a strong set for reward. ¹⁸⁰

^{174.} See id. at 223.

^{175.} Id. at 230.

^{176.} Id. at 234.

^{177.} Id. at 235.

^{178.} Id. at 234.

^{179.} See Lynam, supra note 68.

^{180.} Id. at 572.

In many important respects, research of the past decade has supported earlier conceptions of juvenile psychopathy. McCord and McCord contended that the juvenile psychopath is excitement seeking, impulsive, aggressive, and callous. 181 Recent research presents a somewhat more refined portrait of the "fledgling psychopath," but substantially more investigation is needed, investigation that examines clinical characteristics of youth with the disorder. Recent research indicates that psychopathic youth are substantially more likely to present with comorbid psychiatric disorders such as ADHD, CD, substance abuse/dependence, and other personality disorders, than are non-psychopathic youth offenders or adolescent nonoffenders. Psychopathic youth exhibit a moderately greater propensity to violence and institutional violence/misbehavior, and they exhibit an earlier and more persistent/varied criminal career than do non-psychopathic delinquents. Psychopathic youth evince more "egoistic" and less developed moral reasoning than do their general population counterparts, but it is currently unclear how, if at all, the ethical decision-making of psychopathic youth differs from that of nonpsychopathic youth offenders. ¹⁸² Although there is some support for the relationship of early life experiences such as child abuse to the development of psychopathy, the respective roles and interaction of genetic and environmental factors in the etiology of the disorder remain to be elucidated. That is, although research characterizing the clinical features of juvenile psychopathy has produced some important findings to date, far less has been accomplished with regard to the development of a convincing etiological account of juvenile psychopathy.

V. ETIOLOGICAL THEORIES

Over the past fifty years, divergent theories have attempted to explain psychopathy and its protean manifestations. Few theories have focused specifically on the causal origins of *juvenile* psychopathy; rather, general pathogenetic accounts of the disorder

^{181.} See McCord & McCord, supra note 13.

^{182.} See Edens et al., supra note 51, at 56.

have been forwarded. This section summarizes several of these accounts, ranging from the strictly social to the neurobiological.

A. Social/Environmental Theories

McCord and McCord presented a "neurosocial" model of psychopathy that incorporated three individual causal pathways: severe parental rejection by itself, mild parental rejection in concert with neurological damage, or mild parental rejection in conjunction with deleterious potentiating environmental circumstances. ¹⁸³ Like other theories of the 1950s, the McCords' model emphasized the roles of affectional deprivation and other early environmental influences. The McCords also held that "anthropologists and sociologists use techniques which should be applied to the study of psychopathy. Such problems as the internalization of guilt, the effects of culture on psychopathy, the relation between social change and personality, and the impact of crises on character demand deeper examination than they have yet received." ¹⁸⁴

Writing more recently, Porter contended that much of the confusion as to the origins of psychopathy might be due to a failure to distinguish between primary and secondary forms of the disorder. Primary psychopathy, Porter argued, is largely genetic in etiology, whereas secondary psychopathy is best regarded as a form of dissociative disorder that presents with the emotional-numbing characteristic of posttraumatic stress disorder. Adverse early life experiences such as child abuse, Porter believed, may play an important role in the development of secondary psychopathy. Porter suggested that although evidence exists to support a role for social and developmental factors in the development of psychopathy, the political climate in criminology has not been receptive to environmental explanations of psychopathy in recent years.

^{183.} See MCCORD & MCCORD, supra note 13.

^{184.} Id. at 91.

^{185.} Stephen Porter, Without Conscience or Without Active Conscience? The Etiology of Psychopathy Revisited, 1 AGGRESSION & VIOLENT BEHAV. 179, 183 (1996).

^{186.} Id. at 186.

^{187.} Id. at 183-84.

^{188.} Id. at 184.

Further, Porter contended that research results obtained to date might be misleading to the extent that investigations have focused primarily on one subtype of psychopathy to the exclusion of the other. ¹⁸⁹

Levenson raised a number of concerns with contemporary sociological, biological, and developmental theories of psychopathy, arguing that "environmental explanations of psychopathy are as deterministic—indeed as reductionistic—as physiological ones. The latter seek internal causes; the former seek external causes. Both are predicated upon the unexamined assumption that conscience, which the psychopath lacks, is reducible to sociological or physiological variables." Levenson asserted that the psychopathic personality, which he called the "unchecked self," is a logical by-product of "a philosophy of intrinsic, existential meaninglessness combined with transcendental selfishness [that results in] the devaluation of everything which is extraneous to the immediate wishes of the self.... The unchecked expansion of the self necessarily entails the trivilization of the other."

B. Developmental Perspectives

Although not a theory of psychopathy per se, Moffitt proposed a pathogenetic model of "life-course persistent" antisocial behavior articulated social processes the bv which with criminogenic neuropsychological impairments interact environmental factors to produce behavior problems early in life and stable antisocial conduct across the life course. 192 "The evidence is strong that neuropsychological deficits are linked to the kind of antisocial behavior that begins in childhood and is sustained for periods."¹⁹³ Temperamental and neuropsychological vulnerabilities contribute to maladaptive social interactions that promote dysfunctional adaptation through a variety of transactional processes. Moffitt characterized evocative interactions as those that occur when an individual's behavior evokes a characteristic response

^{189.} Id. at 186-87.

^{190.} Michael R. Levenson, Rethinking Psychopathy, 2 THEORY & PSYCHOL. 51, 60 (1992).

^{191.} Id. at 62.

^{192.} See Moffitt, supra note 3.

^{193.} Id. at 680.

from another person. 194 "Reactive interaction occurs when different youngsters exposed to the same environment experience it, interpret it, and react to it in accordance with their particular style ... Proactive interaction occurs when people select or create environments that support their styles. As a result of these transactional processes, delinquent youth experience two forms of deleterious outcomes: contemporary continuity and cumulative continuity. "Contemporary continuity arises if the life-coursepersistent person continues to carry into adulthood the same underlying constellation of traits that got him into trouble as a child. such as high activity level, irritability, poor self-control, and low cognitive ability." 196 As youth with early neuropsychological and developmental vulnerabilities grow older, their options for change are increasingly limited by their low educational achievement, failure to develop prosocial attitudes, and increasing ensnarement in an antisocial life—what way of Moffitt terms "cumulative continuity."197

[The] theory of life-course-persistent antisocial behavior asserts that the causal sequence begins very early and the formative years are dominated by chains of cumulative and contemporary continuity. As a consequence, little opportunity is afforded for the life-course-persistent antisocial individual to learn a behavioral repertoire of prosocial alternatives. ¹⁹⁸

C. Evolutionary Biology

Lalumiere, Harris, and Rice described two dramatically different contemporary perspectives on psychopathy: the psychopathological, which assumes that psychopathy is properly regarded as a psychiatric disorder; and the evolutionary, which considers "the behavioral, emotional, cognitive, and neuropsychological characteristics of psychopaths . . . [not as] deficits or impairments; instead, they are

^{194.} Id. at 682.

^{195.} Id. at 683.

^{196.} Id.

^{197.} Id.

^{198.} Id.

[regarded as] a set of organized, functional, and specialized phenotypic features that formed a viable reproductive social strategy in human evolutionary history."¹⁹⁹ If early human evolutionary history was characterized by conditions in which cooperation was common, movement from group to group was relatively easy, and the detection of "cheaters" exacted costs:

[P]sychopathy can be considered to be [an adaptive] lifehistory strategy consisting of short-term mating tactics, an aggressive and risky ... approach to achieving social dominance, and frequent use of non-reciprocating and duplicitous . . . tactics in social exchange.

These ideas suggest that the defining features of psychopaths . . . are not pathological outcomes of impaired development, but rather features of a Darwinian adaptation designed to thrive in an interpersonal environment dominated by social cooperators.

The defining features and characteristics of psychopaths do show evidence of design with regard to the particular life-history and social strategies hypothesized by evolutionary psychologists. It is difficult to imagine how the combination of these characteristics could result from pathology.²⁰⁰

Proponents of evolutionary biological explanations of psychopathy have not, however, clearly elucidated the adaptive features of the neuropsychological impairments, attentional deficits, and other characteristics that commonly accompany juvenile psychopathy.

D. Frontal Lobe Dysfunction

Several divergent lines of research suggest that defects in the structure or function of the frontal lobes may contribute to psychopathy. Clinical investigations of premorbidly, well-adjusted

^{199.} Martin L. Lalumiere et al., *Psychopathy and Developmental Instability*, 22 EVOLUTION & HUM. BEHAV. 75, 78 (2001).

^{200.} Id. at 79-80 (internal quotation marks omitted).

individuals suffering damage to the frontal lobes indicate that such damage can produce a syndrome characterized by extravagantly antisocial behavior, lack of goal-directedness, and limited self-awareness. ²⁰¹ Lykken concluded that "there is no doubt that patients with frontal lobe damage commonly exhibit abnormalities of conduct that are strongly reminiscent of psychopathy."

Efforts to identify more subtle neuropsychological indications of frontal lobe impairment have generally not proven successful, although the research of Newman and others, in relation to reward dependence, suggests the possibility of frontal lobe dysfunction in some psychopaths. Gorenstein and Newman had originally drawn parallels between the behaviors of rats with frontal/septal lesions and psychopaths with regard to their apparent deficits in response inhibition and relative insensitivity to changing aversive contingencies. However, it is unclear whether the tendency of psychopathic youth and adults to persevere in previously rewarded responding as the probability of punishment increases reflects an underlying frontal lobe dysfunction or is simply another indication of their general risk-taking propensity. 204

E. Neurobiological

Quay concluded that more than forty-five studies supported the "undersocialized aggressive" versus "socialized delinquent" typology initially proposed by Hewitt and Jenkins in 1945 and developed a theoretical model pertaining to the undersocialized delinquent subtype. ²⁰⁵

The principal characteristics of the undersocialized aggressive syndrome are fighting, defiance, bullying, disruptiveness, exploitativeness, and disturbed relations with

^{201.} See Antonio R. Damasio et al., Individuals with Sociopathic Behavior Caused By Frontal Damage Fail to Respond Autonomically to Social Stimuli, 41 BEHAV. BRAIN RES. 81 (1990); LYKKEN, supra note 161.

^{202.} Id. at 178.

^{203.} See E.E. Gorenstein & J.P. Newman, Disinhibitory Psychopathology: A New Perspective and a Model for Research, 87 PSYCHOL. REV. 301 (1980).

^{204.} See LYKKEN, supra note 161.

^{205.} Quay, supra note 7, at 166.

both peers and adults. The socialized syndrome involves truancy from home and school, furtive group stealing, group drug use, and group oriented illegal activities. Relations with adults may be disturbed, but there are close relations with, and loyalties toward, peers of the same behavioral persuasion. ²⁰⁶

The undersocialized aggressive subtype was included as one CD subtype in the third edition of the DSM, which emphasized the violent conduct associated with this subtype of the disorder "in the context of a failure to establish a normal degree of affection, empathy, or bonds with others; egocentrism; callousness; and manipulative behavior." Obviously, Quay's undersocialized aggressive subtype of CD shares striking similarities with the notion of juvenile psychopathy.

Quay's theory of undersocialized aggressive CD, rooted in Gray's neurobiological theory of personality, held that youth with the disorder experienced a dominance of the reward-oriented brain system (REW), which controls incentive motivation, over the Behavioral Inhibition System (BIS), which inhibits behavior under conditions of punishment, non-reward, or novelty. Quay reviewed research results indicating that youth with aggressive undersocialized CD were impulsive, evidenced reduced noradrenergic neurotransmission, attenuated electrodermal responses to external stimuli (suggesting BIS underactivity), and persistent responding for a reward even in the face of a rising probability of punishment.

F. Psychopathy as Psychopathology

Lynam contended that juvenile psychopaths' early neuropsychological impairments lead to HIA problems, which then dispose youth to the development of CD symptoms, and finally evolve into full-blown psychopathy.²¹¹ Early behavioral

^{206.} Id.

^{207.} Id.

^{208.} See J.A. Gray, The Psychology of Fear and Stress (1987); J.A. Gray, Perspectives on Anxiety and Impulsivity: A Commentary, 21 J. Res. Personality 493 (1987).

^{209.} Quay, *supra* note 7, at 168-76.

^{210.} Id.

^{211.} See Lynam, supra note 169; Lynam, supra note 68.

manifestations of HIA problems include excessive involvement in the pursuit of pleasurable activities (i.e., hyperactivity), inattention or insensitivity to parental sanctions and other efforts to restrain behavior, and impulsive behavior when the opportunity to obtain rewards is present. Mild conduct problems initially emerge as the "fledgling psychopath" is frustrated in his relentless pursuit of rewards—aggressive, manipulative, and other more serious maladaptive behaviors may then ensue. Entry into school is associated with further efforts to constrain the HIA/CD-afflicted youth's behavior and their prior adverse experiences (i.e., "cumulative continuity") and generally poorly inhibited behavior (i.e., "contemporary continuity") eventuates in the personality and behavioral features thought to exemplify juvenile psychopathy. 214

G. Miscellaneous Theories

A wealth of research has been conducted in recent years examining the relationship of the neurotransmitter serotonin and its principal metabolite, 5-HIAA, to impulsive aggression, suicidal and homicidal behavior, impulse control disorders, and criminal behaviors such as arson. Although many of these studies have identified significant inverse associations between levels of central nervous system serotonin/5-HIAA and aggressive behaviors, one difficulty for this theory is that low levels of serotonergic neurotransmission are thought to predispose to anxiety and dysphoria—negative emotional states that are not thought to be characteristic of primary psychopathy, at least by some theorists.

Lykken speculated, on the basis of his clinical experience, that some psychopaths may suffer from a form of hysteria akin to Multiple Personality/Dissociative Identity Disorder, given the notable contrast between their intermittently, floridly antisocial behavior and the more placid and sensible demeanor they effect generally.²¹⁶ Equally speculative, it seems, are the psychoanalytic

^{212.} See Lynam, supra note 169, at 224-26.

^{213.} Id.

^{214.} Id.

^{215.} See LYKKEN, supra note 161.

^{216.} Id. at 529 (citing AM. PSYCHIATRIC ASS'N, supra note 42, at 188-90).

conceptualizations of psychopathy that locate the origins of the disorder in early psychosexual development. Lykken proposed a more plausible account of the etiology of psychopathy that viewed the fundamental deficit underlying the disorder as an inability to fully experience fear. All characteristic features of psychopathy, Lykken argued, derive from this initial affective deficit.

The juvenile and adult psychopathy literature would benefit from additional efforts to develop comprehensive, integrative theoretical accounts of the disorder that attempt to account for the plethora of available neurobiological, social, and psychological research findings. The theories reviewed above represent only a sampling of etiological explanations for the disorder published in recent years.

VI. FUTURE RESEARCH DIRECTIONS

The construct of psychopathy is a promising, though currently problematic, contribution to the study of serious, violent, and chronic youth offenders. More research is needed, particularly studies that examine the ethical, preventative, and rehabilitative implications of valid and false-positive diagnoses of juvenile psychopathy;²¹⁸ and the nature, pervasiveness, and consequences of the stigma that characterizes public and professional perceptions of the disorder.

Future investigations should evaluate the temporal and cross-situational stability of behavioral and affective characteristics thought to comprise psychopathy and the concurrent/predictive validity of psychopathy measures designed for children and early adolescents (including cutoff thresholds for psychopathy diagnoses and associated sensitivity and specificity rates). Specific studies should be undertaken to assess the interactive effects and temporal stability of Factor One and Factor Two psychopathy traits and the similarity of adolescent and adult psychopaths with regard to

^{217.} See LYKKEN, supra note 161, at 186-91.

^{218.} See J. Reed, Psychopathy—A Clinical and Legal Dilemma, 168 BRIT. J. PSYCHIATRY 4 (1996).

^{219.} See Seagrave & Grisso, supra note 51.

^{220.} See Scott O. Lilienfeld, Methodological Advances and Developments in the Assessment of Psychopathy, 36 BEHAV. RES. & THERAPY 99 (1998).

psychophysiological, neuropsychological, psychiatric, autonomic, and affective characteristics. ²²¹

Epidemiological studies should examine the nature, prevalence, and developmental manifestations of juvenile psychopathy and associated psychiatric disorders among girls and women²²² and the relationship of ethnicity to psychopathy in a variety of adolescent offender and community samples.²²³ Studies of the prevalence of psychopathic traits and frank psychopathy in large community samples of youth might also offer new insights into the disorder and the factors that moderate its expression.²²⁴

Additional research pertinent to adolescent psychopathy assessment is vitally important to ensure better identification and treatment of the juvenile psychopath. Studies examining the interpersonal behavior²²⁵ and validity of self-reports of psychopathic youth are especially needed. Investigations incorporating various psychophysiological and neuroimagining measures would also help to better distinguish psychopathic and non-psychopathic youth offenders.²²⁶

Studies should assess the long-term clinical and criminological outcomes of youth with various configurations of Factor One and Factor Two traits (low-low, high-high, low-high, high-low) and the role of parenting practices and other experiential factors—particularly deficits in early attachment and factors that mediate affective bonding to parents and others—on long-term outcomes visà-vis psychopathy.²²⁷

Policy analyses evaluating the extent to which measures of psychopathy are currently being used to make transfer, decertification, and sentencing decisions involving youth are critically important in determining to what extent the construct is

^{221.} See Forth & Burke, supra note 87.

^{222.} See Lynam, supra note 56; Lynam, supra note 68.

^{223.} See Seagraves & Grisson, supra note 51.

^{224.} See Forth & Burke, supra note 87.

^{225.} See Lilienfeld, supra note 220; Bernard Rime et al., Psychopathy and Nonverbal Behavior in an Interpersonal Situation, 87 J. ABNORMAL PSYCHOL. 636 (1978).

^{226.} See Lynam, supra note 56; Lynam, supra note 68.

^{227.} See Saltaris, supra note 119.

being applied prematurely or inappropriately in the juvenile justice system. 228

Finally, clinical responses of psychopathic youth to a range of pharmacologic, psychosocial, and combined treatment/management interventions are needed to determine whether these efforts can be successful with this youth population, given the current level of knowledge regarding the disorder. To some extent, the dearth of studies examining treatments for psychopathic youth may reflect the therapeutic pessimism that has traditionally accompanied the diagnosis of psychopathy.

VII. PROMISES AND PERILS OF A PSYCHOPATHY OF CRIME: THE TROUBLING CASE OF JUVENILE PSYCHOPATHY

Contemporary clinical legal education and practice could potentially profit substantially from greater appreciation of scientific research pertaining to mental disorders. 230 Research may eventually allow for effective, early legal and psychological intervention with youth who might otherwise proceed inexorably to adult psychopathy and reduce the personal and social costs of the resulting criminal careers. However, it is apparent, given historical conceptualizations of the disorder and recent research findings that unbridled application of the construct within the juvenile justice system could result in the "writing off" of a significant number of American youth. Currently, the most prudent course, given the uncertain state of scientific knowledge and highly stigmatized nature of the disorder, would seem to be to restrict application of the construct to research settings, pending additional studies that assess the stability of the disorder over the life course and its amenability to a range of prevention, treatment, and management approaches.

229. Ia.

^{228.} See Steinberg, supra note 9.

^{229.} Id.

^{230.} See Joanmarie I. Davoli, Still Stuck in the Cuckoo's Nest: Why Do Courts Continue to Rely on Antiquated Mental Illness Research?, 69 TENN. L. REV. 987 (2002).