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Were Wolfgang's chronic offenders psychopaths? On the convergent validity between psychopathy and career criminality

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Abstract

Both the criminal career and psychopathy literatures have empirically shown that approximately 5 percent of the criminal population accounts for the preponderance of the incidence of crime; however, these areas of inquiry are largely independent. The current study sought to integrate these literatures using a state population of incarcerated delinquents ($n = 723$). Descriptive, regression, and ROC-AUC analyses produced significant evidence of the effects of personality and affective psychopathic traits on career criminality net the effects of demographic and mental health controls. Psychopathic traits nearly doubled the total explanatory power of the regression model for career criminality and correctly predicted career criminal membership with accuracies ranging from 70 to 88 percent. Implications of these findings and suggestions for increased integration of criminal career and psychopathy research are proffered.

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Introduction

The seminal work that established the contemporary understanding of career criminals was *Delinquency in a Birth Cohort* published by Wolfgang, Figlio, and Sellin in 1972. The study followed 9,945 males born in Philadelphia in 1945 and who lived in the city at least from ages ten to eighteen. They found that nearly two-thirds of the population never experienced a police contact and that 35 percent of the population had. Based on this, one can be comforted to know that most people in a population are law-abiding to the extent that the police never contact them for deviant behavior. For the minority of persons whom were actually contacted by police, the police contacts were rare occurrences occurring just once, twice, or three times. On the other hand, some youth experienced more frequent interaction with police. According to Wolfgang et al. (1972), persons with five or more police contacts were chronic or habitual offenders. Of the nearly 10,000 boys, only 627 members, just 6 percent of the population, qualified as habitual offenders. The chronic 6 percent, however, accounted for 52 percent of the delinquency in the entire cohort, 63 percent of all

index offenses, 71 percent of the murders, 73 percent of the rapes, 82 percent of the robberies, and 69 percent of the aggravated assaults. Herein was the quantifiable evidence that a small minority of high-rate offenders known as career criminals were guilty of perpetrating the majority of all criminal acts in a population.

A second and improved study examined a cohort of 13,160 males and 14,000 females born in Philadelphia in 1958 (Tracy, Wolfgang, & Figlio, 1990). Overall, the 1958 cohort committed crime at higher rates than the 1945 cohort and demonstrated greater involvement in the most serious forms of crime, but roughly the same proportion of persons, 33 percent, experienced arrest prior to adulthood. Approximately 7 percent of the population members were habitual offenders, and they accounted for 61 percent of all delinquency, 60 percent of the murders, 75 percent of the rapes, 73 percent of the robberies, and 65 percent of the aggravated assaults. Across research designs, analytical methods, and data sources selected from North America, South America, Europe, Asia, and Australia, criminologists have repeatedly affirmed the empirical regularity that a small subgroup of offenders, or career criminals, accounts for the bulk of delinquency occurring in a society (for reviews, see Blumstein, Cohen, Roth, & Visher, 1986; DeLisi, 2005; Moffitt, Caspi, Rutter, & Silva, 2001; Piquero, Farrington, & Blumstein, 2003; Weiner, 1989).

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Curiously, the study of career criminals is largely independent of the study of psychopathy. Psychopathy is a clinical construct defined by a constellation of interpersonal, affective, lifestyle, and behavioral characteristics that manifest in multifarious antisocial behaviors. Psychopaths are grandiose, emotionally cold, manipulative, callous, arrogant, dominant, irresponsible, short-tempered persons who tend to violate social norms and victimize others without guilt or anxiety. They are human predators without conscience (Blair, Mitchell, & Blair, 2005; Cleckley, 1941; Hare, 1991, 1993; Patrick, 2006). Furthermore, there appears to be strong empirical overlap between the constructs of career criminality and psychopathy. Consider this observation from Hare (1999, p. 186), “One of the interesting findings to emerge from this research is that in spite of their small numbers—perhaps 1 percent of the general population—psychopaths make up a significant portion of our prison populations and are responsible for a markedly disproportionate amount of serious crime and social distress.” This is essentially the same conclusion reached by criminologists that study habitual offenders.

For decades, the career criminal/criminal career and psychopathy literatures have existed in relative isolation from each other as if these constructs were ships passing in the night. If both literatures indicate that approximately 5 percent of the population is responsible for the majority of antisocial acts, to what degree are the literatures converging on the same phenomenon? The current study sought to provide a preliminary answer to this question using a large population of adjudicated and institutionalized juvenile delinquents. By examining the predictive validity between psychopathy and career criminality, the current authors attempted to bolster the empirical and conceptual bridge between these literatures that together focus on society’s most violent and recalcitrant offenders. The following literature review focuses rather specifically on criminal career research that incorporated analyses or discussion of psychopathy and psychopathy research that examined the criminal careers of psychopaths.

Literature review

Psychopathy in criminal career research

“There has been a recurrent tendency for scholars to gravitate toward the concept of psychopathy to illuminate criminality that is so apparent at such an early age that it appears to be innate” (DeLisi, 2005, p. 81). In the early decades of the twentieth century, Glueck and Glueck (1930, 1943) found that psychopathy was a useful variable to differentiate delinquents from nondelinquents. They described psychopathic offenders as openly destructive, antisocial, asocial, and less amenable to therapeutic or educative efforts. Empirically, Glueck and Glueck (1943) found that the prevalence of psychopathy was almost two orders of magnitude greater among a delinquent sample than a matched, nondelinquent control group. Gough’s (1948) sociological theory of psychopathy summarized a set of characteristics that typified psychopathic offenders. These characteristics included insensitivity to social demands or others, shallow

emotionality, self-centeredness coupled with a complete lack of empathy, impulsive behavior, lack of stress or anxiety over social maladjustment, gross irresponsibility, and emotional poverty. In the course of their longitudinal study of offending careers, Robins and O’Neal (1958) advised that:

A relatively circumscribed segment of the population [is] distinguished by a life-long failure to conform to the social mores...it seems probable that criminal activities are more frequently only one expression of a grossly disturbed life pattern of which transiency, violence, and unstable family relations, as well as crime, are typical. Even as children, these boys engaged in antisocial behavior in most contexts, were thoroughly irresponsible, and showed neither concern for their actions nor remorse for the persons whom they affected. (p. 170)

Although some early investigators of criminal careers utilized the construct of psychopathy, it clearly was not central to the longitudinal study of criminal behavior. Attempts to create criminal typologies largely ignored psychopathy with the exception of Gibbons (1988) who devised the term “psychopathic assaultists” for a very specific type of offender. In fact, the use of personality factors, which is central to psychopathy research, was viewed as empirically weak and marginalized within the mainstream study of crime (Schuessler & Cressey, 1950; Tennenbaum, 1977; Waldo & Dinitz, 1967).

Within the last twenty years, a series of works (Gottfredson & Hirschi, 1990; Moffitt, 1993; Raine, 1993; Wilson & Herrnstein, 1985) signaled a paradigm shift in criminology whereby a focus on individual-level factors, such as psychopathology, became increasingly important to the study of serious and violent criminal behavior. Interestingly, much research in this area utilized constructs that were nearly identical to psychopathy without actually referring to them as such. For instance, Gottfredson and Hirschi’s (1990) general theory of crime advanced that low self-control was the indispensable predictor of crime and other antisocial behaviors. The construct describes individuals who are impulsive, self-centered, and insensitive to others, hot-tempered, irresponsible, and prone to risky, myopic endeavors. These individuals weakly attach to conventional adult responsibilities evidenced by strained family relations, unemployment, and failure at school. Empirically, low self-control has been linked to multifaceted forms of antisocial behavior, so much that it has emerged as one of the predominant individual-level variables in criminology (Pratt & Cullen, 2000). Although the constellation of traits that typifies low self-control is essentially an abbreviated description of the behavioral traits of psychopathy, criminologists have only recently investigated the overlap between the constructs (cf. Cauffman, Steinberg, & Piquero, 2005; DeLisi, 2003; Unnever, Cullen, & Pratt, 2003; Wiebe, 2003).

In 1986, the Office of Juvenile Justice and Delinquency Prevention (OJJDP) created the Program on Research on the Causes and Correlates of Delinquency that resulted in three prospective longitudinal studies, the Denver Youth Survey, Pittsburgh Youth Study, and Rochester Youth Development Study. The panel studies produced comparable findings about

the disproportionate violent behavior of adult chronic offenders. Between 14 and 17 percent of the youths were habitual offenders who accounted for 75 to 82 percent of the incidence of criminal violence. These adolescents in Denver, Pittsburgh, and Rochester tended to be “multiple problem youth” who experienced an assortment of antisocial risk factors, such as mental health problems, alcoholism and substance abuse histories, and sustained criminal involvement. A small minority of youth were the most frequent, severe, aggressive, and temporally stable delinquent offenders. These youth, all of them males, were reared in broken homes by parents who themselves had numerous mental health and parenting problems. These boys were also noticeable by their impulsivity, emotional and moral insouciance, and total lack of guilt with which they committed crime. Indeed, even as children they showed many of the characteristics of psychopathy (Huizinga, Loeber, Thornberry, & Cothorn, 2000; Loeber et al., 2001).

Farrington (2006) explored etiological predictors of psychopathy using data from the Cambridge Study in Delinquent Development, a forty-year prospective longitudinal survey of the criminal careers and social histories of 411 London males. Using the PCL:SV (Screening Version), Farrington compared the offending careers of the top 11 percent of the sample who scored 10 or above on the PCL:SV (deemed the most psychopathic) to the remaining members of the panel. The most-psychopathic group totaled significantly more convictions, greater involvement in the criminal justice system, and presented with more criteria for antisocial personality disorder diagnosis. Moreover, nearly 49 percent of this group were chronic offenders. Although this prevalence estimate was several times greater than lower psychopathic groups, it indicated that slightly less than half of the group met the criterion for career criminality. Importantly, only two of the thirty-three men in the most-psychopathic group (a community sample) met the clinical diagnosis for psychopathy. In addition, Farrington (2006) found that an assortment of background factors were predictive of psychopathy at age forty-eight. The strongest predictors (with corresponding odds ratios) were uninvolved father (6.5), physical neglect (5.9), convicted father (5.1), low family income, and convicted mother (4.5). In sum, psychopathy has loomed as tangential but clearly important to the study of offending careers and the most chronic offenders. Psychopathy research that incorporated the careers perspective is examined next.

Criminal career/career criminals in psychopathy research

A variety of scholars have empirically explored the links between psychopathy and assorted dimensions career criminality, especially recidivism and noncompliance with criminal justice sanctions. Harris, Rice, and Cormier (1991) examined the recidivism rates of 169 male offenders released from a psychiatric facility and followed-up one year later. Nearly 80 percent of psychopathic offenders committed a new violent offense. Moreover, psychopathy was the strongest predictor of recidivism. In fact, its effects were stronger than the combined effects of sixteen background, demographic, and criminal his-

tory variables. Hemphill, Templeman, Wong, and Hare (1998) found that age at first conviction (onset) was inversely related to rating on the PCL-R. Moreover, high PCL-R offenders had the most at-risk criminal career profiles based on violent and general recidivism. Hemphill et al. (1998, p. 393) also found that psychopathy scores predicted general recidivism as accurately and violent recidivism better than actuarial instruments designed specifically to predict recidivism. Blackburn and Coid (1998) compared the criminal careers of seventy-eight psychopaths and eighty-nine non-psychopaths sampled from a maximum-security psychiatric hospital. Psychopaths' age at first criminal conviction was age twelve, five years earlier than the onset for non-psychopathic maximum-security prisoners. Moreover, the psychopathic group averaged more than twenty-six criminal convictions, more than 250 percent more convictions than the comparison group. Psychopaths also netted significantly more convictions for major violence, minor violence, burglary, property damage, fraud, robbery, and firearms violations. Similarly, Simourd and Hoge (2000) investigated criminal history differences among psychopathic and non-psychopathic offenders using a sample of 321 prisoners convicted of violent crimes. Compared to non-psychopaths, psychopathic offenders accrued significantly more prior convictions, total convictions, different types of convictions, crimes of violence, and previous convictions for failing to comply with criminal sentences.

Psychopathy is also germane to specific categories of offenders. For instance, Campbell, Porter, and Santor (2004) examined psychopathic traits using a sample of 226 incarcerated adolescent offenders. Overall, they found that in terms of criminality, a violent and versatile criminal history was positively associated with clinical diagnosis of psychopathy using the PCL:YV (Youth Version). Among delinquent youths, psychopathy was significantly correlated with externalizing problems, delinquency, aggression, prior violent offenses, noncompliance with the juvenile justice system, abuse history, and expulsion from school. Gretton, McBride, Hare, O'Shaughnessy, and Kumka (2001) examined the effects of psychopathy on recidivism among a sample of 220 adolescent male sex offenders. Offenders were trichotomized into low, medium, and high-risk groups based on their score on the PCL:YV for general offense, violent offense, and sexual offense recidivism. For all three types of offenses, psychopathy scores were linearly related to recidivism; in other words, the high-risk group was most likely to recidivate, followed by the medium and low risk groups. Also using sex offender samples, Porter et al. (2000) found that psychopathic offenders were significantly likely to commit both rape and child molestation, suggesting a versatile pattern of aggression irrespective of whether the victim was a child or adult. Edens, Buffington-Vollum, Colwell, Johnson, and Johnson (2002) found that incarcerated sex offenders amassed more infraction for institutional misconduct if they presented with psychopathy. Moreover, the effect of psychopathy on institutional misconduct was more pronounced for physically aggressive offenses. In their recent review of the literature, Douglas, Vincent, and Edens (2006, p. 534) found that psychopathy was perhaps the quintessential predictor of

recidivism and the magnitude of its effects far exceeded the relative effects of other known risk factors for serious and violent criminal behavior.

Hart and Hare (1997, p. 22) noted that, "Many psychopaths engage in chronic criminal conduct and do so at a high rate, whereas only a small minority of those who engage in criminal conduct are psychopaths. This means that psychopaths are responsible for a disproportionate amount of crime in our society." As this quotation suggests, psychopaths demonstrate a behavioral repertoire that is replete with behavioral features consistent with career criminality. For example, the social deviance component in Hare's (1991) Psychopathy Checklist-Revised (PCL-R) includes items, such as early behavioral problems, juvenile delinquency, revocation of conditional release, and criminal versatility. In the criminal career literature, these items reflect the constructs of onset, continuity of offending, non-compliance with the criminal justice system, and versatility. In this sense, career criminality could be construed as part and parcel of psychopathy.

The current study

Both the criminal career and psychopathy literatures have empirically shown that approximately 5 percent of the criminal population accounts for the preponderance of the incidence of crime; however, these areas of inquiry are largely independent. The current study sought to integrate these literatures using a state population of incarcerated delinquents.

Methods

Sample and study procedures

The study sample represented a cross section ($n = 723$) of the population of residents ($n = 740$) in the Missouri Division of Youth Services (DYS) at the time the study was undertaken. DYS is the legal guardian of all residents who are committed to its care by the state's forty-five juvenile courts. The DYS population is representative of incarcerated youth nationally with regard to the average age and gender distribution of offenders, percentage delinquent versus status offenders, and number of state youth currently incarcerated per 100,000 adolescents (Sickmund, 2004). All current residents were recruited for study participation at the time that interviewing commenced. The sample recruitment protocol ensured that no youths who had completed the interview at one facility then attempted to complete or were successful in completing the interview at another facility. This study was approved by DYS, the Washington University Human Studies Committee Institutional Review Board, and the federal Office of Human Research Protection, and was granted a Certificate of Confidentiality by the National Institute on Drug Abuse (NIDA). Youths received \$10 for their participation.

The mean age of the study sample was 15.5 ($SD = 1.2$) and ranged from ages eleven to twenty. In terms of gender and ethnicity, the sample was largely male (87 percent) and predominately White (55.3 percent) and African American (32.9 percent). No seasonal,

administrative, or legislative or clinical issues that might have operated to reduce the representativeness of the sample were found. All interviewers completed an intensive one-day training session consisting of an overview of measures and consent procedures. An interview editor was on-site at each facility as youth were interviewed to minimize interviewer omissions and errors. DYS residents are under twenty-four-hour-a-day supervision; thus, interviews were conducted in large rooms that provided private areas where confidential interviews could be conducted simultaneously with between three and six youth.

All youth providing written informed consent completed the structured face-to-face approximately forty-five-minute interview assessing demographic characteristics, lifetime and annual use of sixty-five inhalants, other drug use, substance-related problems, current and lifetime psychiatric symptoms, thoughts of suicide and actual suicide attempts, trauma and victimization history, antisocial personality traits, and violent and nonviolent criminal activity. The final participation rate was 97.7 percent. Additional information on the study sample and procedures was published elsewhere (Vaughn, Howard, Foster, Dayton, & Zelter, 2005).

Measures

Career criminal index

In constructing an index of career criminality within the limitations of a cross-sectional design that relied on self-reported items, a wide range of behaviors that are indicative of a persistent offending life-style were included. Thus, the index included items from self-report measures that assessed violent and nonviolent delinquency; age at onset for offending, police contact, and appearance in juvenile court; lifetime polysubstance use; and personal victimizations as proxies for criminal careers. These overlapping problem behaviors matched the behavioral repertoire of serious, violent, and chronic juvenile offenders (Elliott, 1994; Huizinga et al., 2000; Loeber & Farrington, 1998). This set of indicators was used to capture generality in delinquent behavior and reflect the realistic depth of involvement in various forms of deviant behavior. Number of self-reported offending and personal victimizations encountered were based on the twelve months prior to residential incarceration. Data on violent and nonviolent delinquency was drawn from the Self Report of Delinquency (SRD) (Elliott, Huizinga, & Ageton, 1985; Elliott, Huizinga, & Menard, 1989). Personal criminal victimization items (e.g., have you been attacked with a weapon by someone attempting to hurt you?) were drawn from Esbensen, Osgood, Taylor, Peterson, and Freng (2001). The lifetime polysubstance use measure assessed fourteen types of substance use including substances such as alcohol, heroin, ecstasy, marijuana, hallucinogens, cocaine, amphetamines, inhalants, and many others. Standardized items forming the career criminal index (CCI) were found to be internally consistent ($\alpha = 0.82$). Items forming the CCI were subjected to exploratory factor analysis utilizing an oblique rotation. Inspection of the scree plot, extracted sums of squares loadings (i.e., eigenvalues and percentage of cumulative variance) all pointed toward a single dominant factor, thus supporting the uni-dimensionality of the index.

Psychopathic personality/traits

The thirty-three-item modified Psychopathic Personality Inventory (Lilienfeld & Andrews, 1996) Short-Version (mPPI-SV) was used in conjunction with the self-report version of the twenty-item Antisocial Process Screening Device (Frick & Hare, 2002) to gather information on psychopathic personality traits. The PPI-SV is based directly upon the 187-item PPI that has shown good reliability and usefulness as a self-report measure assessing psychopathic personality (Vaughn & Howard, 2005). The PPI and PPI-SV possess a Likert-type response format ranging from: 1 = false, 2 = mostly false, 3 = mostly true, and 4 = true. Both measures, but in particular the PPI-SV, are considered a "pure" personality inventory of psychopathy because it contains no items directly assessing antisocial behaviors. Exploratory factor analyses of the fifty-six-item PPI showed that many items did not load (> 0.30) on any factors and were therefore eliminated. This was not surprising given that this instrument was developed mostly on adult samples. The modified PPI-SV consists of a rebellious narcissism or self-centered nonconformity factor, characterized by aggressive ego-centered interpersonal relations, the tendency to externalize blame, and rebelliousness. Factor 2, carefree-unemotionality, is characterized by a deficient affective experience and present-oriented personality feature. The third factor, fearlessness, can be described by low fear, risk-taking, and lack of concern for potential harmful consequences. The modified PPI-SV total score reliability was adequate ($\alpha = 0.76$) as well as its rebellious narcissism ($\alpha = 0.77$), carefree-unemotionality ($\alpha = 0.68$), and fearlessness ($\alpha = 0.70$) factors.

The caregiver and self-report versions of the APSD have been used in over ten studies (Vaughn & Howard, 2005) and is thought to be a useful screening measure of psychopathic traits. The APSD is scored on an ordinal scale, ranging from 0 (not at all true) to 2 (definitely true). Recent support for a three-factor model consisting of impulsivity, callous-unemotional traits, and narcissism factors has been found (Vitacco, Rogers, & Neumann, 2003). The three factors comprising the measure are impulsivity, callous-unemotional, and narcissism.

The three factors extracted from each measure correspond to the behavioral (i.e., impulsivity and fearlessness), interpersonal (i.e., narcissism), and affective (i.e., callous and carefree unemotionality) dimensions identified in recent research on the factor structure underlying psychopathy (Cooke & Michie, 2001; Skeem & Cauffman, 2003). The internal consistency reliability analyses using Cronbach's alpha coefficients were evaluated for each measure and their respective factor scores. The total score alpha reliability for the APSD was adequate ($\alpha = 0.81$) as well as for the narcissism factor ($\alpha = 0.75$) and impulsivity factor ($\alpha = 0.67$). Reliability was marginal for the callous-unemotional factor ($\alpha = 0.57$). Exemplar items for the psychopathic traits appear in Table 1.

Psychiatric symptoms

The Brief Symptom Inventory (BSI) was used to assess current psychiatric symptoms. This instrument consists of fifty-three items with a Likert-type format consisting of nine sub-scales and an overall Global Severity Index relating to major mental health disorders (i.e., anxiety, depression, etc.) in order to characterize

Table 1

Psychopathy factors and exemplar items

Measure	Representative item
<i>APSD</i>	
Impulsivity	"You act without thinking of the consequences."
Narcissism	"You brag a lot about your abilities, accomplishments, or possessions."
Callous-unemotional	"You feel bad or guilty when you do something wrong." (reverse scored)
<i>PPI-SV</i>	
Fearlessness	"I might enjoy flying across the Atlantic in a hot-air balloon."
Unemotionality	"It bothers me greatly when I see someone crying." (reverse scored)
Narcissism	"Frankly, I believe I am more important than most people."

current psychiatric status. Prior studies supported the BSI as a reliable and valid measure of current psychiatric symptoms (Derogatis & Savitz, 2000; Kellett, Beail, Newman, & Frankish, 2003; Soar, Turner, & Parrott, 2006). Test-retest reliabilities, symptom endurance particularly if untreated, and sensitivities in relation to psychiatric diagnoses were high. Total BSI reliability in the present study was excellent ($\alpha = 0.96$) with sub-scale reliabilities ranging from 0.70 (phobic anxiety) to 0.83 (depression).

Mental health diagnosis, ADHD, and head injury

Participants were asked whether or not they had a current mental health disorder diagnosis of any type by a psychiatrist or psychologist, if in addition they had been diagnosed with Attention Deficit Hyperactivity Disorder (ADHD), and if they were currently taking medication, such as Ritalin or Adderall for this disorder. In addition, the current authors asked whether or not participants experienced a head injury that led to a loss of consciousness (blackout period) that lasted for at least twenty minutes. Both ADHD and head injury are strongly correlated with serious antisocial behavior in juveniles (Beauchaine, Katkin, Strassberg, & Snarr, 2001; Lahey, Moffitt, & Caspi, 2003; Raine, 2002; Raine et al., 2005).

Traumatic experiences

The MAYSI-2 Traumatic Experiences Scale (Grisso, Barnum, Fletcher, Cauffman, & Peuschold, 2001) was used to assess the severity of past trauma. Reliability analyses from the present study indicated adequate reliability for the traumatic experiences sub-scale ($\alpha = 0.77$ for females; $\alpha = 0.68$ for males).

Demographics

These variables consisted of age ($M = 15.5$ years, $SD = 1.2$ years), gender (0 = male, 1 = female), ethnicity (0 = White, 1 = African American, 2 = Hispanic, 3 = multiethnic or other), and family receipt of public assistance (0 = no, 1 = yes) that served as a socioeconomic status proxy.

Analytical procedures

Convergent validity between psychopathic personality scores and the CCI was examined in a number of ways. First,

hierarchical multiple regression techniques explored the incremental validity of psychopathy factor scores over and above demographic and mental health variables in relation to the CCI. This was important in order to establish whether psychopathic personality traits provide additional information. Regression diagnostics were conducted to test for multicollinearity and help ensure unbiased estimates. In addition, normality of residuals was checked to ensure regression assumptions; no violations were detected. Second, the current authors created a dichotomous variable comprised of non-career criminal membership (N = 646) and career criminal membership (N = 72) based on a cut point at the ninetieth percentile on the CCI. The goal was to restrict membership in the career criminal group and be confident in its specifications vis-à-vis psychopathy factors. Following univariate analyses of the two groupings, the current authors sought to examine the positive predictive power of each psychopathy measure in correctly classifying career criminal membership utilizing plots of sensitivity and specificity generated from a Receiver Operator Characteristic (ROC) graph and by examining the area under the curve (AUC). This was important in order to establish whether psychopathy scores can predict with better than chance accuracy who was in the career criminal group.

Results

Incremental validity of psychopathy factors

In the next set of analyses, three regression models were examined. The first contained a demographic set of variables

Table 2
Career criminal index regressed on demographic mental health and psychopathic factor variables: unstandardized (standardized) (n = 721)

	Model 1	Model 2	Model 3
Age	.020 (.007)	-.039 (-.014)	.055 (.020)
Female ¹	-.516 (-.052)	-.795 (-.080) *	-.669 (-.068) *
Black ²	.168 (.024)	.453 (.064)	1.057 (.149) ***
Latino/Latina	1.951 (.115) **	1.486 (.087) *	1.442 (.085) **
Multiethnic	1.048 (.085) *	.816 (.066)	.596 (.049)
Receipt of welfare	-.189 (-.028)	-.394 (-.058)	-.339 (-.050)
<i>Mental health variables</i>			
Head injury		1.315 (.153) ***	1.256 (.146) ***
Global Severity Index		.030 (.316) ***	.014 (.152) ***
Mental health diagnosis		.610 (.092)	.492 (.074)
ADHD		-.432 (-.063)	-.395 (-.057)
<i>Psychopathy factor variables</i>			
mPPI-SV narcissism			.041 (.093) *
mPPI-SV unemotional			.048 (.073)
mPPI-SV fearlessness			.038 (.073) *
APSD impulsive			.262 (.215) ***
APSD unemotional			.250 (.109) **
APSD narcissism			.058 (.061)
Model R ²	.02	.18	.31

¹Dummy coded with the males as the excluded category.

²Dummy coded with whites as the excluded category.

* p < 0.05.

** p < 0.01.

*** p < 0.001.

Table 3

Descriptive characteristics of career criminal (N = 72) and non-career criminal (N = 646) groups

	Non-career group M (SD)	Career group M (SD)
Gender N (%)		
Male	562 (87.0%)	63 (87.5%)
Female	84 (13.0%)	9 (12.5%)
Ethnicity N (%)		
African-American	215 (33.3%)	21 (29.2%)
White	360 (55.7%)	37 (51.4%)
Latino/Latina	21 (3.2%)	7 (9.7%)*
Multiethnic	50 (7.7%)	6 (8.3%)
Receipt of welfare N (%)	259 (41.0%)	28 (39.0%)
Age	15.5 (1.26)	15.6 (0.94)
mPPI-SV total score	74.6 (11.96)	85.1 (12.63) ***
mPPI-SV narcissism	32.0 (7.37)	37.8 (6.40) ***
mPPI-SV unemotional	19.4 (5.07)	20.8 (4.92)*
mPPI-SV fearlessness	23.2 (6.28)	26.5 (6.70) ***
APSD total	18.2 (5.26)	22.0 (4.83) ***
APSD impulsivity	7.9 (2.71)	9.7 (2.33) ***
APSD unemotional	2.0 (1.44)	2.4 (1.52)*
APSD narcissism	6.9 (3.45)	9.1 (3.46) ***
General delinquency	20.8 (14.46)	58.3 (16.19) ***
Victimization index	5.3 (4.61)	15.9 (7.56) ***
Violent offending	8.7 (7.61)	26.0 (10.18) ***
Nonviolent offending	12.1 (10.13)	32.2 (10.69) ***

* p < .05.

** p < .01.

*** p < .001 for χ^2 and t-tests.

(Model 1), followed by a set of mental health variables (Model 2), and finally the complete model with psychopathy factors (Model 3). The goal was to partial out the amount of variance that psychopathy factors would account for in the career criminal index as an interval level variable while controlling for demographic variables and mental health covariates such as having a head injury leading to unconsciousness, global psychiatric symptoms, and possessing a mental health or specifically an ADHD diagnosis. As shown in Table 2, four of the psychopathy factors: two from the mPPI-SV, narcissism (b = .041, β = .093, p < .05) and fearlessness (b = .038, β = .073, p < .05); and two from the APSD, impulsivity (b = .262, β = .215, p < .001) and unemotionality (b = .250, β = .109, p < .01) were significant predictors over and above demographic and mental health variables. The psychopathy factor block accounted for 13 percent of explained variance in career criminality (CCI). Both head injury (b = 1.26, β = .146, p < .001) and global symptoms (b = .014, β = .152, p < .001) derived from the Brief Symptom Inventory were also significant predictors of CCI. Females compared to males had lower mean scores and African-Americans and Latino/Latinas had somewhat higher mean scores than Whites.

Differences between career and non-career criminal groups

As shown in Table 3, there were no significant proportional differences between non-career and career criminal groups. Interestingly, there were equal proportions of females in the career group. This contrasts with previous research on career

criminal membership with respect to gender (DeLisi, 2002; Moffitt et al., 2001). There were no significant differences with respect to age. There were, as expected, significant differences in mean psychopathy total and factor scores and mean levels of general delinquency, victimization, violent and nonviolent offending. It should be mentioned that although statistically significant, the mean score differences in psychopathy unemotional factors were not as pronounced as the other psychopathy factors.

Likelihood of psychopathy predicting career criminal membership

Assessing the ability of the psychopathy measures to classify career criminal membership was continued by generating a Receiver Operator Characteristic (ROC) analysis and associated area under the curve (AUC) graphs for each of the measures. Commonly employed in medicine and engineering, ROC analysis facilitates the testing of a measures sensitivity (true positive) and specificity (true negative) in efficiently classifying membership in a specific dichotomous outcome. If the probability of a test is .50 under the curve, this means that true positives and false positives are essentially identical, whereas a value of 1.0 area under the curve is perfect predictive accuracy. Figs. 1 and 2 display the results of the ROC analyses for the APSD (score range = 5–33) and the mPPI-SV (score range = 37–121), specifically showing the percentage area under the curve that correctly identified career criminal membership. Both measures were moderately able to correctly classify (sensitivity) career membership with 70.2 (SE = .031, $p < .001$) and 72.5 (SE = .031, $p < .001$) percent AUC accuracy respectively. The current authors next wanted to know what the sensitivity and specificity of these measures would be if high APSD and mPPI-SV scores (1 SD above the mean) were used. Results using the cut score of 24 (score range = 5–33) for the APSD indicated a sensitivity of 88.1 and specificity of 69.4. The mPPI-SV showed similar strength using a cut score of 88

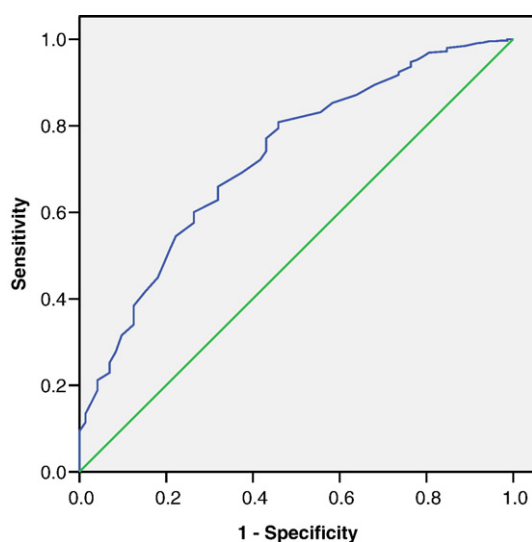


Fig. 1. ROC Results Assessing MPPI-SV Accuracy in Classifying Career Criminal Membership.

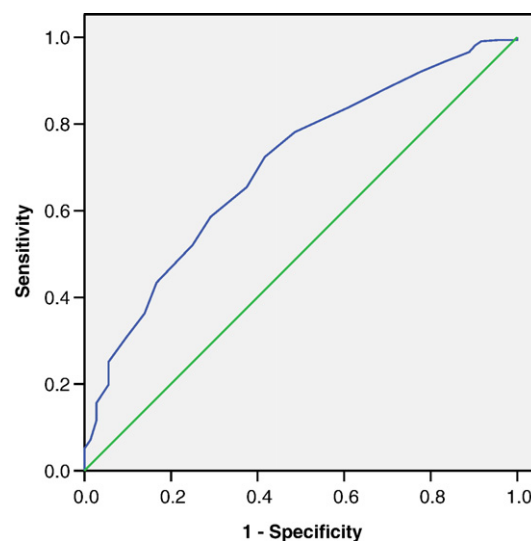


Fig. 2. ROC Results Assessing APSD Accuracy in Classifying Career Criminal Membership.

(score range = 37–121) with a sensitivity of 87.2 and specificity of 63.9.

Discussion

Historically, researchers that investigated criminal careers and researchers that investigated psychopathy have arrived at the same general conclusion: a small cadre of extremely antisocial, violent, and criminal persons is responsible for most of the incidence of crime. With few exceptions, these literatures have not explored the interconnections between the phenomena of career criminality and psychopathy. Perhaps the segregation of research stems from the disciplinary backgrounds of the research communities. Criminal career research is largely the domain of criminologists trained as sociologists. Psychopathy research is largely the domain of psychologists and psychiatrists.

Clearly there is empirical convergence. Offenders in the current study who presented with psychopathic characteristics were much more likely than offenders without psychopathic traits to be classified as career criminals. Subsequent ROC-AUC analyses indicated that the APSD and mPPI-SV measures were moderately able to correctly classify career criminal membership from 70 percent to nearly 73 percent respectively. When higher threshold specifications for APSD and mPPI-SV were set, the classification accuracy improved to an impressive 88 percent. In multivariate analyses, the APSD impulsive factor, APSD unemotional factor, mPPI-SV fearlessness factor, and mPPI-SV narcissism factor significantly predicted career criminality net the effects of demographic, socioeconomic, and mental health factors. Introducing psychopathy factors to the regression model nearly doubled its explanatory power.

In other words, the current study supported the general idea that psychopathic traits are analogous to career criminality. An implication that immediately comes to mind is that incarcerated delinquents who are noted for their impulsive decision-making, lack of fear, self-centeredness, callous and unemotional affect, or some combination of these traits are the group most at-risk

for continued antisocial behavior presumably while in custody and upon release into the community. Based on the standardized regression coefficients, impulsivity and unemotionality appear to be the strongest personality factors linked to career criminality. It also makes intuitive sense. If youths are intent on meeting their selfish needs regardless of how their behavior affects other people, if youths are unfazed by dangerous and risky situations, and if youths have little concern with inflicting harm on others because they lack empathy, then psychopathic traits have considerable utility in explaining why some offenders recurrently violate the law.

If one is interested in general forms of deviance that encompasses normative offenders, then the construct of psychopathy has potentially limited value (see Walters, 2004). Yet if one wants to understand more extreme forms of criminal behavior and the highest degrees of criminality, the construct of psychopathy is quite valuable. Explicitly linking it with the criminal career/career criminal literature accords exciting and potentially fruitful avenues for future research. For instance, the current study could be replicated with an adult sample to evaluate whether lifelong career offenders are in fact psychopathic just as the incarcerated adolescents in the current study were. This replication could be done with both community and correctional samples to examine the generality of the relationship between psychopathy and career criminality.

Of course, some limitations of the current study should be recognized and considered. Although the study group was the entire population of incarcerated youth from Missouri, it contained relatively few Hispanic, Asian, and Native American subjects, which limited its generalizability. Moreover, there are a host of variables that have been empirically and theoretically linked to career criminality that the current authors were unable to examine, such as family and school background characteristics (Farrington, 2000; Hawkins et al., 1998; Lipsey & Derzon, 1998; Loeber & Dishion, 1983) and criminal history information derived from official criminal records (Berg & DeLisi, 2005; DeLisi, 2001; Geerken, 1994). It would have been ideal to control for these factors in assessing the independent effects of psychopathy on career criminality, hopefully future researchers will do so. Finally, the current effort used cross-sectional data and thus could not assess the temporal ordering necessary to reveal causal relationships and the linearity of these relationships. For instance, researchers (Harris, Rice, & Quinsey, 1994; Skilling, Quinsey, & Craig, 2001; cf. Edens, Marcus, Lilienfeld, & Poythress, 2006) have provided empirical evidence that life-course persistent antisocial behavior is underlain by a taxon, a distinct classification or group of psychopathic offenders. Moreover, empirical support for the psychopath taxon has also been assessed in children (Skilling et al., 2001; also see Lynam, 1996, 1997). With longitudinal data, the current study could have examined the effects of psychopathic traits on antisocial behavioral outcomes during both childhood and adolescence, as well as examine if the effects varied over time. Despite these limitations, the current attempt to formally bridge the study of career criminals and psychopathy was strengthened by the large study population, high response rate, use of an assortment of

covariates, and multifaceted analytical plan. Additionally, the current investigation was a conservative test of the predictive power of psychopathy factors given that the study population was comprised entirely of juvenile offenders whose antisocial careers are obviously truncated. Finally, because the measures gauged the personality and affective traits of psychopathy and not its behavioral dimension, the tautology criticism inherent in modeling the effects of antisocial behavior on antisocial behavior was avoided.

This study began with a description of Wolfgang et al.'s (1972) finding that 6 percent of a cohort of nearly 10,000 males accounted for the bulk of delinquency, particularly its most violent forms. It is unknown whether these 627 boys were psychopathic. If the current empirical links between psychopathic traits and career criminality are any indication, it is very likely that some, perhaps many, of the Wolfgang chronic offenders were psychopathic.

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