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## PSYCHOPATHY AND INSTRUMENTAL VIOLENCE: FACET LEVEL RELATIONSHIPS

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### Abstract

The relationship between psychopathy and violence is well established. However, the extent to which psychopathy is related to different types of violent behavior warrants further study. We examined the relationship between instrumental violence, psychopathy, and psychopathic traits among 248 European American and African American adult male county jail inmates. We assessed instrumentality based on subjective motivations for respondent-identified acts of violence. Psychopathy was assessed using the PCL-R based on interview and file review. We controlled for potentially important covariates, namely IQ and prior violence. Results were in part consistent with findings from studies with adolescents, in that we identified a positive relationship between instrumentality of violence and manipulative interpersonal style. Results differed from youth studies with regard to relationships between instrumentality and other facets of psychopathy. The implications of our study are discussed with regard to treatment and the developmental stability of the relationship between psychopathic traits and instrumental violence.

The forensic application of psychopathy as a predictor of risk for future violence has increased dramatically over the last decade (Walsh & Walsh, 2006). However, the extent to which psychopathy is related to different types of violent behavior warrants further study. One meaningful distinction in the classification of violent behavior involves instrumentality. Instrumental violence refers to violence that is employed as a means to attain a subsidiary goal, and can be contrasted with reactive violence, which involves a response to a perceived threat or provocation (Sears, Maccoby, & Levin, 1957). Instrumental and reactive violence can be reliably distinguished (Cornell et al., 1996; Poulin & Boivin, 2000). It has been proposed that the instrumental-reactive distinction may be important in criminal profiling (Woodworth & Porter, 2002), treatment for aggressive individuals (Conner, Duberstein, Conwell, & Caine, 2003), and identification of the situations in which individuals are likely to become violent (Dodge & Coie, 1987).

The most widely used and well-validated measure of psychopathy in adults is the Psychopathy Checklist-Revised (PCL-R; Hare, 2003). Two correlated dimensions underlie PCL-R scores, Factor 1 (F1), affective and interpersonal traits, and Factor 2 (F2), impulsive, antisocial lifestyle, and these factors can be further subdivided into correlated lower-order dimensions: F1 can be parsed into arrogant, deceitful interpersonal style (Interpersonal facet), and deficient affective experience (Affective facet); F2 can be parsed into impulsive, irresponsible lifestyle (Lifestyle facet) and prodigious antisocial behavior (Antisocial facet; Hare, 2003). Most evidence suggests relationships between psychopathy and violence are

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chiefly reliant on F2 (Walters, 2003; Gendreau, Goggin, & Smith, 2002; cf. Walsh & Kosson, 2008).

Several studies have examined the relationship between psychopathy and instrumental aggression. In a seminal examination, Cornell et al. (1996) reported that criminal offenders who had committed one or more instrumentally violent acts had higher PCL-R total scores than offenders whose violent behavior was solely reactive. Similarly, homicides committed by psychopathic offenders were found to be more instrumental than homicides committed by nonpsychopathic offenders (Woodworth & Porter, 2002). Although the relationship between violence and psychopathy has been reported to be largely due to traits captured by F2, there is also evidence that the callous, unemotional, and manipulative traits captured by F1 facilitate the cold calculation that characterizes instrumental violence (Hare, 2003). Indeed, Woodworth and Porter (2002) reported that the association between psychopathy and instrumental murder was due largely to F1, and Williamson, Hare, and Wong (1987) found that psychopathic offenders were less likely than nonpsychopaths to have experienced emotional arousal during violent offenses.

Relationships have also been identified between psychopathy and instrumental violence in youth (Murrie, Cornell, Kaplan, McConville, & Levy-Elkon, 2004; Vitacco, Neumann, Caldwell, Leistico, & Van Rybroek, 2006; Flight & Forth, 2007). The two studies of youth that reported subcomponent-level relationships found that elements of F1 were important for predicting instrumentality. However, these studies report different subcomponents of F1 as being most strongly related to instrumentality. Specifically, Vitacco et al. (2006) reported that committing instrumental aggression was positively related to scores on the interpersonal facet, and negatively related to scores on the antisocial facet. In contrast, Flight and Forth (2007) identified positive relationships between instrumentality and scores on all facets at the zero-order level and a unique relationship between commission of instrumental violence and scores on the affective facet.

In summary, although results at the subcomponent level are not entirely consistent, the weight of the evidence suggests that the psychopathy construct in general, and more specifically the core personality traits captured by F1, are positively associated with instrumental violence. These relationships have been identified among adult and juvenile populations and across several indices of instrumental violence.

The present study extends prior examinations of relationships between psychopathy and instrumental violence in several ways. Firstly, this study is, to our knowledge, the only study of adult criminals to examine relationships between instrumental violence and the four-facet model of psychopathy. This approach permits the determination of the extent to which the relationship between psychopathy and instrumental violence is due to core elements of the psychopathic personality, and as such, may also elucidate prior findings that employed the two-factor model.

Secondly, the present study uses a novel index of instrumental violence that builds on the methodology of prior studies that relied on raters' assessments of file information to assess the instrumentality of violent behavior. Because the instrumental-reactive distinction relies, in large part, on an assessment of the motivation for violence, a method that allows access to participants' *perceived* levels of provocation, emotional arousal, and related factors may be more ecologically valid than assessments based solely on records that list procedural characteristics of violent acts. Our method directly queried offenders' motivation for the violent act and as such it allowed insight into subjective factors that are important for valid assessment of instrumentality.

In the current study we also based our assessment on a different instance of violent behavior than has been examined in prior studies. Assessing instrumentality is complicated by the observation that the majority of violent offenders have engaged in multiple incidents of both instrumental and reactive violence (Cornell et al., 1996). To address this, prior studies have either selected a single incident such as the instant offense (Hart & Dempster, 1997) or a homicide conviction (Woodworth & Porter, 2002), or a categorical aggregate of violent behaviors across the lifetime (Cornell et al., 1996; Flight & Forth, 2007). Limitations of both methods may obscure relationships with external variables. Categorical classifications (i.e., presence/absence of instrumentality) based on aggregation might inaccurately cluster together individuals for whom instrumentality is the exception with those for whom the instrumental use of violence is more consistent and do not capture potentially important gradations in instrumentality. Conversely, the relatively arbitrary selection of a single incident in a lifetime of violence (e.g., the instant offense) might result in the selection of a non-representative sample of behavior. To address the limitations associated with these approaches, we asked participants to examine the single incident involving the commission of the most harmful violent behavior. This method does not overcome the limitations associated with assessing instrumentality from a single act; however, it may tap a more ecologically valid domain than the instant offense and allows for use of a diverse sample of violent individuals.

Third, unlike prior studies, we controlled for prior violence and IQ. These factors may be important to the relationship between instrumental violence and psychopathy for several reasons. With regard to prior violence, it has been proposed that the propensity for instrumental violence may be acquired through reinforcement for aggressive behaviors (Dodge, 1991). Individuals with higher levels of psychopathy may be generally more aggressive and may encounter more opportunities to be reinforced for aggressive behavior. As such, the relationship between psychopathy and instrumental violence could be an artifact of the relationship between both factors and general violence. Prior studies also suggest that IQ, in addition to psychopathy, may contribute to prediction of violence (Walsh, Swogger, & Kosson, 2004). Moreover, given that positive relationships have been identified between interpersonal facet scores, instrumentality and IQ (Vitacco et al., 2006), the concurrent examination of intelligence might elucidate the relationship between interpersonal features of psychopathy and instrumental violence.

Based on prior studies (Cornell et al., 1996), we predicted a positive relationship between psychopathy and instrumentality. We further predicted that this relationship would persist after controlling for IQ and prior violence. In light of prior research (Vitacco et al., 2006) we also hypothesized that interpersonal facet scores would be positively related to instrumental violence.

## **METHOD**

### **PARTICIPANTS**

Participants were 248 male European American and African American county jail inmates between the ages of 18 and 44 ( $M = 26.49$ ,  $SD = 6.54$ ) serving terms of one year or less for felony or misdemeanor convictions. All participants had a history of at least one violent offense.

### **PROCEDURES**

The PCL-R was scored based on interviews and record reviews; observers were present for 31% of interviews ( $ICC = .88$ ). The mean total PCL-R score was 25.88 ( $SD = 6.50$ ). Instrumentality was assessed on a five-point scale using the Aggressive Incident Coding

Sheet (AICS; Cornell et al., 1996), based on responses to the questions “What is the worst injury you have ever caused to someone?” and “What made you do that?” Raters were blind to psychopathy scores. A second rater scored 10.6% of the sample ( $ICC = .88$ ). IQ was assessed with the Shipley Institute of Living Scale-Revised (SILS-R), a brief test of general intelligence (Bowers & Pantle, 1998). The mean IQ score for the sample was 89.67 ( $SD = 13.11$ ). Number of violent charges ( $M = 4.35$ ,  $SD = 4.17$ ) was coded from institutional files. As in Hare and McPherson (1984), violent charges included robbery, assault, murder, weapons charges, kidnapping, and sex crimes.

We computed zero-order correlations to examine simple relationships between PCL-R total and facet scores and instrumentality scores. We conducted a hierarchical regression to determine the relationship between PCL-R total scores (entered in Step 2) and instrumentality after controlling for IQ and number of prior violent charges (entered in Step 1). We conducted a second regression to determine the unique contributions of each facet to instrumentality (entered in Step 2) after controlling for the other facets and IQ and violent charges (entered in Step 1).

## RESULTS

Correlations are shown in Table 1.<sup>1</sup> Total PCL-R scores and scores on the interpersonal and antisocial facets were positively related to instrumentality. Affective facet scores displayed no zero-order relationship with instrumental violence. Regression analyses (Table 2) revealed that PCL-R total scores were associated with instrumentality after controlling for IQ and prior violence. Further, facet level analyses identified unique positive relationships between instrumentality and scores on the interpersonal and antisocial facets. Regressions also revealed a unique inverse relationship between instrumentality and affective facet scores.

## DISCUSSION

Current findings are consistent with prior studies in that psychopathy was positively related to the instrumental use of violence (Cornell et al., 1996; Woodworth & Porter, 2002). That this relationship was evident using a novel criterion for instrumentality and controlling for other predictors indicates that the relationship between psychopathy and the calculating use of violence to achieve secondary goals is relatively stable and consistent. Facet-level analyses clarified the dependence of this relationship between psychopathy and instrumentality on core elements of the psychopathic personality. The positive relationship between the interpersonal component of psychopathy and instrumental aggression is directionally consistent with findings from juvenile offenders (Vitacco et al., 2006; Flight & Forth, 2007) and is of similar magnitude to the effects reported by Vitacco et al. (2006). However, our effects appear to be smaller than relationships reported by Flight and Forth (2007). In sum, our finding adds to growing evidence of a stable relationship between the interpersonal component of psychopathy and violence (Hill, Neumann, & Rogers, 2004) and suggests some consistency across adolescents and adults. However, further research is required to determine the stability of the size of this relationship across the lifespan. Given that instrumental scores are associated with verbal IQ (Salekin, Neumann, Leistico, & Zalot, 2004), it is also noteworthy that present results cannot be attributed to effects of IQ.

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<sup>1</sup>Distributions of all variables were examined prior to conducting primary analyses. Nine facet scores were missing. Age, violent charges, and instrumentality were positively skewed, and logarithmic transformations were used to reduce skewness. All analyses were conducted using both transformed and untransformed variables. Because the pattern of significant results was identical, only results for analyses using untransformed variables are reported.

There are at least two mechanisms through which a grandiose and manipulative interpersonal style might contribute to instrumental violence. Grandiosity may reduce fear of being apprehended and facing consequences, thereby increasing the likelihood of judgments that goal directed violence is feasible. Also, given the prominence of conning and manipulateness in the interpersonal facet, instrumental violence may be one of many manipulative tactics used. Research that investigates violence-related cognitions may help to further elucidate mechanisms underlying this relationship.

The relationship between instrumentality and the antisocial facet is inconsistent with findings from a study with adolescents (Vitacco et al., 2006) and illustrates the need for caution in generalizing findings from youth to adult samples. Because only a minority of antisocial adolescents persist in antisocial behavior into adulthood (Moffitt, 1993), it is probable that antisocial adults differ in important ways from antisocial adolescents. Findings regarding affective features of psychopathy and instrumental violence were mixed and were also inconsistent with studies in youth (Flight & Forth, 2007; Vitacco et al., 2006). The absence of a zero-order relation between affective facet scores and instrumentality suggests that affective aspects of psychopathy are not related to instrumental aggression. Given difficulties in interpretation when partial and zero-order correlations diverge (Lynam, Hoyle, & Newman, 2006), we are reluctant to interpret the unique negative association between affective facet scores and instrumentality. Nonetheless, our findings raise the possibility that, in adults, instrumental aggression does not reflect callousness and lack of emotional depth.

Several limitations of the present study are notable. First, assessing the most violent offense rather than the instant offense may have resulted in poorer recall of offense details than in some prior studies. However, there is no evidence of impaired recall in psychopathic offenders. There is also evidence that psychopaths under-report the instrumentality of their violent acts (Porter & Woodworth, 2007), which suggests that file-based measures of instrumentality may yield stronger relationships between psychopathy and instrumentality than self-report measures such as ours. Nonetheless, this potential limitation did not prevent us from identifying relationships of interest.

The present study provides further evidence for a relationship between the interpersonal traits of psychopathy, and violent behavior. Such evidence contributes to our understanding of differences across classes of violent offenders and may have implications for the identification, management, and treatment of individuals who engage in instrumental violence. Specifically, interventions aimed at curbing impulsive behaviors (i.e., anger management) may be less effective among individuals who engage in goal-directed violence. Rather, such individuals might be better served by interventions that highlight negative consequences of violence and identifying alternative strategies for goal attainment (Ginsburg, Farbring, & Forsburg, 2006). Another implication of our findings involves discrepancies between findings for juvenile and adult samples. This inconsistency suggests the need for longitudinal research to identify elements of psychopathy in youth that predict adult violence. Specifically, prospective studies could help to differentiate between traits that predict life-course-persistent, versus adolescent-limited, instrumental violence. Such findings may be helpful for tailoring therapeutic strategies to address the most important targets for intervention.

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**TABLE 1**  
Intercorrelations Among Psychopathy and Characteristics of Most Violent Offense

Variable	1	2	3	4	5	6
1. PCL-R	—					
2. Interpersonal	.75**	—				
3. Affective	.69**	.49**	—			
4. Lifestyle	.75**	.39**	.36**	—		
5. Antisocial	.67**	.34**	.26**	.42**	—	
6. Instrumentality	.14*	.18**	-.06	.07	.20**	—

*Notes.* PCL-R = PCL-R total scores. Interpersonal, Affective, Lifestyle, and Antisocial correspond with facets of the PCL-R. Instrumentality = Instrumentality versus reactivity of most violent offense, with higher scores indicating greater instrumentality.

\*  $p < .05$ ;

\*\*  $< .01$ .



**TABLE 2**

Multiple Regressions: Associations between PCL-R Total and Facet Scores and Instrumentality of Most Violent Offense

		$\beta$	$R^2$	$p$
Regression 1				
Step One	IQ	.03	<.01	.57
	Violent Charges	.05	<.01	.39
Step Two	IQ	.03	<.01	.60
	Violent Charges	.03	<.01	.66
	<b>PCL-R Total</b>	<b>.13</b>	<b>.02</b>	<b>.03</b>
Regression 2				
Step One	IQ	.04	<.01	.53
	Violent Charges	.06	<.01	.31
Step Two	IQ	.01	<.01	.85
	Violent Charges	.02	<.01	.75
	<b>Interpersonal</b>	<b>.24</b>	<b>.04</b>	<b>&lt;.01</b>
	<b>Affective</b>	<b>-.21</b>	<b>.03</b>	<b>&lt;.01</b>
	Lifestyle	-.03	<.01	.63
	<b>Antisocial</b>	<b>.18</b>	<b>.03</b>	<b>&lt;.01</b>