Clarifying associations between psychopathy facets and personality disorders among offenders ☆

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ABSTRACT

Purpose: This study examined bivariate, unique, and multivariate associations between psychopathy facets and other Personality Disorders (PDs).
Method: 76 incarcerated males were assessed with clinical interviews measuring psychopathy and *DSM-5* PDs. Canonical Correlation Analysis (CCA) was used to examine multivariate associations between dimensional scores of psychopathy facets and other PDs.
Results: Preliminary analyses of bivariate and partial associations revealed that much of the covariation between psychopathy and PD traits reflected shared variance among psychopathy facets and among PD traits. After controlling for the shared variance, unique relationships were limited to positive relationships between Narcissistic PD and interpersonal facet and between Paranoid PD and antisocial facet ratings. Canonical Correlation Analysis yielded two pairs of functions that explained the shared variance between psychopathy and PDs. In the first pair of functions, elevations on the interpersonal and antisocial facets were associated with symptoms of Paranoid, Narcissistic, Histrionic, and Antisocial PDs. In the second pair of functions, high levels of the antisocial facet and low levels of the interpersonal facet were related to Borderline PD.
Conclusion: Results suggest that associations between psychopathy and *DSM-5* PDs go beyond established links with Antisocial and Narcissistic PDs to include associations with Histrionic, Borderline, and Paranoid PDs.

1. Introduction

Psychopathy is a personality disorder (PD) characterized by a constellation of affective, interpersonal, and behavioral features, including but not limited to: lack of empathy, guilt, or remorse; shallow affectivity; interpersonal manipulation; impulsivity and irresponsibility; and persistent antisocial tendencies (Cleckley, 1976; Hare & Neumann, 2005). Psychopathy is most often clinically assessed using the Psychopathy Checklist-Revised (PCL–R; Hare, 2003). Whereas the original studies examining the factor structure of the Psychopathy Checklist (PCL) and the PCL–R yielded a two-factor conceptualization of psychopathy (Hare, Harpur, Forth, Hart, & Newman, 1990), more recent advances in psychopathy research have highlighted the value of further subdividing Factors 1 and 2 into four facets or lower order dimensions (Hare & Neumann, 2008). Factor 1, commonly described as the core affective and interpersonal personality components of psychopathy features, has been subdivided into more narrow-band interpersonal and affective facets. Factor 2, commonly described as the antisocial lifestyle

(or social deviance) component of psychopathy, has been subdivided into more narrow-band facets reflecting an impulsive and irresponsible lifestyle, as well as early, persistent, and versatile antisocial tendencies.

Although there is evidence that psychopathy can be conceptualized at multiple levels (the overall disorder, the higher-order factors, or the more specific facets), a focus on the lower-order dimensions of psychopathy has several advantages. First, the use of lower order dimensions allows researchers to study components of psychopathy with greater precision. Not only do the facet level models provide better explanations for the relationships between scores on the PCL-R items, they also provide information about more homogeneous constructs than the higher-order factors (Hare & Neumann, 2008; Smith, McCarthy, & Zapolski, 2009). In addition, research using the facets has demonstrated distinct patterns of relationships for the two facets comprising each higher-order factor (Graham, Kimonis, Wasserman, & Kline, 2012; Hoppenbrouwers, Neumann, Lewis, & Johansson, 2015; Vitacco, Neumann, & Jackson, 2005; Walsh, Swogger, & Kosson, 2009; Walters, Knight, Grann, & Dahle, 2008; for a review, see Hare & Neumann, 2008).

Psychopathy is one of the most empirically well-validated disorders of personality pathology (Miller, Gaughan, & Pryor, 2008), and it has significant forensic and clinical implications for understanding some forms and functions of antisocial behavior, as well as for designing and implementing interventions (DeLisi, 2009). Psychopathy is not yet listed as a distinct PD in the main body of the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*; American Psychiatric Association, 2013). Not only is psychopathy not currently identified as a distinct PD in *DSM-5* (although it is proposed as a specifier for Antisocial PD in a supplementary section), but the empirical literature on psychopathy and other PDs has grown rather separately, with the former of chief interest in criminal justice and forensic systems and the latter of primary interest in clinical settings (Fossati, Pincus, Borroni, Munteanu, & Maffei, 2014).

Even though the diagnostic criteria for Antisocial PD were originally developed to capture the clinical construct of psychopathy (Robins, Tipp, & Przybeck, 1991), there is substantial evidence that PCL-R-assessed psychopathy and *DSM-5* Antisocial PD represent two distinct (but related) operationalizations of the syndrome, with some different characteristics and associated consequences, as well as with different prevalence, prognoses, and underlying mechanisms (Gregory et al., 2012; Kosson, Lorenz, & Newman, 2006; Riser & Kosson, 2013). These differences primarily reflect the fact that criteria for Antisocial PD emphasize the lifestyle and antisocial components of psychopathy, whereas the construct of psychopathy also includes a complex pattern of specific interpersonal features and emotional dysfunctions, which are not required to meet a diagnosis of Antisocial PD (Ogloff, 2006). Accordingly, studies that have adopted the two-factor model of psychopathy have consistently reported lower correlations between ratings of Antisocial PD and PCL-R Factor 1 psychopathy than between ratings of Antisocial PD and PCL-R Factor 2 psychopathy (Crego & Widiger, 2014; Harpur, Hare, & Hakstian, 1989).

The relationship between psychopathy and Narcissistic PD has also received substantial attention. Kernberg (1992) was one of the first to suggest that narcissism, malignant narcissism, Antisocial PD, and psychopathy exist on the same continuum, demonstrating overlapping features among these constructs. In this account, narcissism was distinguished from psychopathy by a less pronounced antisocial lifestyle and by a relatively more intact ability to engage in significant relationships with others (Gunderson & Ronningstam, 2001; Kernberg, 1992). This perspective is also consistent with Cleckley's (1976) seminal description of psychopathy, which included pathological egocentricity (that is, a prototypical narcissistic trait) as a defining feature of psychopathy. As a result, items capturing grandiosity, entitlement, and arrogance have been incorporated in many measures used to examine psychopathic traits (e.g., the PCL-R [Hare, 2003], and the Psychopathic Personality Inventory [Lilienfeld & Andrews, 1996]). More recently, researchers have argued that there are relationships between psychopathy and narcissism (e.g., Hart & Hare, 1998; Miller et al., 2010), and evidence suggests Narcissistic PD is associated with ratings on both of the factors of the PCL–R, though the correlation is typically larger for Factor 1 than for Factor 2 (Fossati et al., 2005).

Although psychopathic features have most often been linked to Antisocial and Narcissistic PDs, fewer studies address relationships between psychopathy and other PDs. This lack of research seems unfortunate because understanding the similarities and differences between psychopathy and other PDs is important for improving the current diagnostic system (e.g., reducing redundancy across disorders) and improving treatment programs, by identifying what is unique to psychopathy and what is shared with other PDs (Fossati et al., 2005). Preliminary findings have linked psychopathy to Paranoid PD (Blackburn, 2007; Blackburn & Coid, 1998; Warren & Burnette, 2013) and other Cluster A PDs, including Schizotypal (Ragsdale & Bedwell, 2013; Rogers, Jordan, & Harrison, 2007; Warren & Burnette, 2013) and Schizoid (Warren & Burnette, 2013) PDs, as well as to Borderline (Miller et al., 2010) and Histrionic PDs (Coid et al., 2009). Table 1 includes all

prior studies that have examined zero-order correlations between dimensional scores on PCL/PCL–R psychopathy and dimensional scores on other clinically measured PDs. The most replicated associations have been between ratings of Antisocial PD and ratings of all four psychopathy facets, as well as between ratings of Narcissistic PD and ratings of the interpersonal and affective facets of psychopathy. Some consistency has also emerged linking Histrionic PD with the interpersonal and affective components (and, to a lesser extent, with the lifestyle and antisocial components) of psychopathy, as well as linking symptoms of Borderline and Paranoid PD with the lifestyle and antisocial components (and, to a lesser extent, with the affective and interpersonal components) of psychopathy. Consistent with the evidence for substantial comorbidity among the PDs, the evidence of links between psychopathy components and eight of the ten PDs included in the *DSM-5* suggests the possibility that substantial shared variance among PDs may contribute to these relationships. Similarly, the moderate to large correlations among psychopathy facet scores suggest the possibility that shared variance among the psychopathy dimensions also contributes to these relationships.

To date, only one published study has reported analyses designed to remove the variance shared by scores on PDs and ratings on psychopathy facets. Coid et al. (2009) used multiple regression analyses to examine unique associations between ratings on each psychopathy facet and symptoms of other PDs after controlling for the variance associated with other PDs, as well as for scores on the other psychopathy facets, substance abuse, psychosis, age, and sex. They reported unique associations between ratings of Antisocial PD and ratings of all facets of psychopathy, between ratings of Narcissistic PD and of the interpersonal and affective facets, between ratings of Histrionic PD and of the interpersonal and lifestyle facets, and between ratings of Schizoid PD and of the affective facet.

Findings like these are important for elucidating which relationships between psychopathy and other PDs are unique, and these results suggest that several of the relationships between specific psychopathy components and specific PD symptoms are robust. However, because Coid et al. (2009) did not report the zero-order correlations between psychopathy facet ratings and other PD symptoms, it is not possible to evaluate whether these unique relationships were also present at the zero-order level or whether they reflect novel associations that emerged only after removing the variance shared among psychopathy facets or PDs. More concretely, when analyses control for scores that correlate substantially with predictor variable scores, the resulting regression coefficients refer to residualized scores on both PDs and psychopathy facets, which do not correspond to the way these syndromes appear in nature (e.g., see Lynam, Hoyle, & Newman, 2006). Moreover, because Coid et al. controlled for scores on other variables that share substantial variance with psychopathy factors (e.g., substance use, sex of participant, etc.), they removed additional substantive variance from scores on psychopathy facets and other PDs. Finally, only studies that report both zero-order and unique associations can indicate which relationships between psychopathy and other PDs reflect specific associations and which reflect the shared variance among the different PDs and among the psychopathy facets.

One way to integrate results regarding bivariate associations and unique contributions between two sets of variables is to adopt a multivariate approach that takes into account the shared variance within each set at the same time, without removing what is shared from the calculation of the single coefficients. One such approach is Canonical Correlation Analysis (CCA). The multivariate approach of CCA has methodological and conceptual advantages when examining the relationships between psychopathy and other PDs (Courville & Thompson, 2001; Sherry & Henson, 2005; Thompson, 1991); however, to our knowledge, it has not been used to examine these associations. First, consistent with evidence regarding the substantial comorbidities among PDs, CCA examines PDs on a continuum rather than as separate categories. Second, it allows for simultaneous comparisons between multiple predictors and multiple dependent