



The Multidimensional Nature of Psychopathy: Five Recommendations for Research

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Abstract

The seven articles in this Special Section of the *Journal of Psychopathology and Behavioral Assessment* underscore the point that, at least in the psychopathy domain, parsimony is frequently an inaccurate scientific heuristic. These articles highlight the multidimensionality of youth psychopathy, suggesting that (a) the full constellation of psychopathy tends to outperform callous-unemotional traits alone in statistically predicting external criteria, (b) psychopathy subdimensions often interact statistically in predicting such criteria, and (c) psychopathy subdimensions often bear markedly different external correlates, including criminal offending, trait anxiety, and emotion processing. I offer five recommendations for future research on psychopathy and argue that that a full comprehension of this condition will require a better understanding of its subdimensions, and their interrelations, placement within the general personality domain, physiological correlates, and genetic and environmental underpinnings.

Keywords Psychopathy · Personality · Externalizing behavior · Boldness

Albert Einstein purportedly said that “everything should be made as simple as possible but not simpler” (see Beaton 2003, p. 593). Similarly, the time-honored heuristic of Occam’s razor reminds us that when confronted with two hypotheses that fit the data *equally well*, we should generally select the simpler one (Jefferys and Berger 1992). Note the two italicized words in the previous sentence; this cardinal principle of parsimony implies that simplicity in theorizing is generally a virtue but that it should not be adopted at the expense of fidelity to reality. As humans, we are cognitive misers (Fiske and Taylor 2013), preferring economy of explanation whenever possible. Such economy streamlines our thinking processes and saves us time, so it is understandable that we tend to prefer simpler models, such as unifactorial models of etiology, to more complex, multifactorial models. Nevertheless, such a preference at times comes at the cost of scientific accuracy.

The seven important articles in this Special Section of the *Journal of Psychopathology and Behavioral Assessment* raise the possibility that much of the field of psychopathic

personality (psychopathy) research may have purchased simplicity at the price of what philosophers term verisimilitude, that is truth-likeness. Specifically, as a sub-discipline, those of us in the psychopathy field may have erred in two quite different ways: (a) focusing unduly on a single lower-order dimension, such as callous-unemotional traits (CU) and (b) focusing unduly on the global construct of psychopathy, without sufficient attention to its constituent sub-dimensions.

Indeed, these articles all underscore the importance of conceptualizing psychopathy as a multidimensional construct (Hare and Neumann 2005; Lilienfeld et al. 2015b; Patrick et al. 2009). Despite their differences, they converge on one overarching conclusion. Psychopathy is a multifaceted organism, and to adequately appreciate this construct and its prognostic implications, we need to consider all of its moving parts. If we neglect to do so, we will often forego valuable etiological and predictive information.

Specifically, Frogner, Andershed, and Andershed (2018), Colins, Andershed, Salekin, and Fanti (2018), and Andershed, Colins, Salekin, Lordos, Kyranides, and Fanti (2018) demonstrate compellingly that although CU traits, operationalized in the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5; American Psychiatric Association 2013) as the “limited prosocial emotions” specifier for conduct disorder (CD), are diagnostically and prognostically valid, additional psychopathy components – the interpersonal

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(e.g., grandiose-manipulative) and behavioral (e.g., impulsive-irresponsible) traits – confer surplus information with regard to severity, stability, and co-occurring conditions (e.g., attention-deficit/hyperactivity disorder). Fanti, Kyranides, Lordos, Colins, and Andershed (2018) and Somma, Andershed, Borroni, and Fossati (2018) show that the three-way statistical interaction among the interpersonal, affective, and behavioral subdimensions provides predictively useful information for adolescent antisocial behavior above and beyond their combined main effects. Ridder and Kosson (2018) demonstrate that although the affective features of psychopathy are associated with both violent and nonviolent criminal variables as well as trait anxiety, the interpersonal and behavioral features of psychopathy offer important incremental information for these and related variables as well. Finally, Gillen et al. (2018) find that the interpersonal, affective, and behavioral subdimensions of psychopathy are differentially associated with facial and vocal processing deficits; interestingly, they report that the interpersonal subdimension is associated with superior accuracy for facial stimuli, perhaps consistent with the hypothesis that psychopathic individuals are social predators (Book et al. 2013) as well as the hypothesis that some features of psychopathy are tied to adaptive functioning (Lilienfeld et al. 2015a; Lykken 1995; Patrick et al. 2009). Gillen further report that psychopathy subdimensions bear differential implications for various facets of empathy. In conjunction, the findings of these seven studies suggest that the proper response to the commonly posed question “Is psychopathy related to variable X?” is so often “it depends,” with the answer hinging critically on the subdimension(s) examined (see also Watts et al. 2017).

Although these seven articles examine childhood and adolescent psychopathy, they bear fruitful implications for research on psychopathy more broadly. In the remainder of this commentary, I build on these articles to offer five recommendations for future research on psychopathy.

Recommendation # 1: Avoid Exclusive Reliance on Total Psychopathy Scores

Were I forced to nominate the most important psychopathy article over the past three decades, my vote would go to Harpur et al. (1989). This seminal publication was the first to highlight the dual points that (a) psychopathy comprises more than one dimension, and (b) these subfactors often display psychologically important differential correlates. Specifically, Harpur et al. demonstrated that Factor I of the Hare Psychopathy Checklist (PCL; Hare 1985), which comprises the affective and interpersonal features of psychopathy, and Factor II of the PCL, which comprises its antisocial lifestyle features, correlated in opposite directions with self-report indices of trait anxiety and neuroticism (Factor I – negative; Factor II – positive). In addition, they reported that whereas

Factor I was largely uncorrelated with indices of intelligence and educational achievement, Factor II was positively correlated with these indices. The differential correlates of these two broad dimensions have been conceptually replicated and extended in a host of studies (Hare 1991/2003). Subsequent factor analyses of the revised version of the PCL (the PCL-R) suggested that both of these two broad factors can be subdivided into narrower facets, each again displaying noteworthy differential correlates (Hare 1991/2003). For example, the affective facet nested within Factor I tends to be especially associated with (reversed) stress reactivity and propensity toward physical aggression, whereas the interpersonal facet nested within Factor I tends to be especially correlated with (reversed) social closeness and interpersonal dominance (Hall et al. 2004).

Later, in an influential article, Patrick et al. (2009) argued that psychopathy broadly construed is a composite of three higher-order dimensions: boldness, meanness, and disinhibition. Notably, boldness tends to be negligibly correlated with disinhibition and only moderately correlated with meanness (with disinhibition and meanness tending to be moderately to highly correlated), raising the intriguing possibility that psychopathy may not be a classical syndrome (Lilienfeld 2013). Most syndromes in psychopathology, such as panic disorder, are characterized by features that correlate moderately to highly across individuals. In contrast, psychopathy may be a configuration of separable and even largely independent attributes (see also Recommendation # 5).

Nevertheless, the answer to the question of whether psychopathy is a syndrome may again be “it depends.” If one relies on measures of psychopathy with little or no representation of boldness or other largely adaptive features of psychopathy, such as the Levenson Self-Report Psychopathy Scale (LSRP; Levenson et al. 1995), psychopathy may comprise a classical syndrome. Indeed, recent analyses suggest that the LSRP is best described in terms of three latent factors that are moderately to highly positively intercorrelated (Sellbom 2011), suggesting a syndromal structure. In contrast, if one relies on measures of psychopathy that are heavily saturated with boldness, such as the Psychopathic Personality Inventory-Revised (Lilienfeld and Widows 2005) or the Triarchic Psychopathy Measure (Patrick 2010), psychopathy is unlikely to be a classical syndrome, because boldness is largely or entirely uncorrelated with other key features of psychopathy (Marcus et al. 2013; Miller and Lynam 2012). Elsewhere, we have argued that these two conceptualizations of psychopathy, with the first being associated with less societal success than the first, may map broadly onto two differing historical conceptualizations of psychopathy, such as secondary and primary psychopathy, clinical and subclinical psychopathy, low-functioning and high-functioning psychopathy, and simple and complex psychopathy, respectively (Lilienfeld et al. 2012, *in press-a, b*).

Neither of these two conceptualizations, we contend, is inherently more “correct” than the other. Instead, the former is more likely to be encountered behind prison and jail walls, whereas the latter is probably more likely to be encountered in the political and business worlds – although to be certain, many “primary” (Cleckley) psychopaths are to be found in the former settings as well.

Regardless of which conceptualization and operationalization one examines, it is clear that certain psychopathy subdimensions often provide distinctive information not provided by other subdimensions. Regrettably, a number of articles continue to rely heavily or even exclusively on psychopathy total scores, although this longstanding practice thankfully appears to be changing, especially in the child and adolescent psychopathy literature. In particular, numerous studies on the “dark triad” of psychopathy, Machiavellianism, and narcissism base their central conclusions on global measures of these constructs that do not permit a separate examination of subdimensions (see Watts et al. 2017). In turn, these studies typically proffer conclusions regarding which of these constructs is (are) most related to a range of variables, such as sexual relationship choices, mating strategies, love styles, and entertainment and humor preferences (e.g., Jonason et al. 2012). Such inferences are likely to be at best incomplete and at worst misleading, because the subdimensions of psychopathy and perhaps other dark triad constructs, at times, fractionate in different, even opposing directions with external criteria.

The articles in this Special Section underscore the well-replicated but still insufficiently emphasized point that an excessive reliance on psychopathy total scores will often obscure marked differential relations at the subdimension level, leading to diluted or even near-zero associations with external criteria. For example, the results of Gillen et al. (2018) demonstrate that an examination of PCL:YV total scores alone would lead to the conclusion that youth psychopathy is unrelated ($r = .02$) to the processing of fearful faces. Nevertheless, closer inspection at the subdimension level reveals that Factor I scores are significantly and moderately associated ($r = .24$) with the processing of fearful faces, a provocative finding largely inconsistent with influential low-fear models of psychopathy (e.g., Lykken 1995) but potentially consistent with social predation models of this condition (Book et al. 2013).

Recommendation # 2: Connect the Psychopathy Literature with the General Personality Literature

One longstanding limitation of much of the psychopathy literature, including work on childhood and adolescent

psychopathy, has been its lack of close connection with the broader literature on general personality. Miller and Lynam (2015) went so far as to maintain that “psychopathy is personality” (p. 225; see also Lynam and Derefinko 2006). If they are correct, then psychopathy is likely to be a constellation or configuration of dimensions drawn from the general personality domain, including those at both higher-order (e.g., low agreeableness) and lower-order (e.g., surgent extraversion) levels of the trait hierarchy. Furthermore, it is plausible that the core subdimensions of child and adolescent psychopathy measures, especially interpersonal (e.g., grandiose/manipulative) and affective (e.g., CU) traits, are not *sui generis* or distinctive to psychopathy. Instead, they are probably amalgamations of general personality traits that are relevant to psychopathy in youth.

To take merely one example, in a sample of 174 mothers and their sons (aged 11 to 16), Litzman et al. (2013) placed CU traits within the broader nomological network of normal personality. They reported that general personality traits accounted for least half of the variance in these traits, with the exception of unemotional traits, which were less well captured by general personality. Specifically, they found that both the Callousness and Uncaring subdimensions of the Inventory of Callous-Unemotional Traits (ICU; Frick 2003) were associated primarily with the general personality dimensions of disinhibition and negative emotionality, whereas the Unemotional Dimension was associated primarily with (reversed) positive emotionality, especially its affective detachment subcomponent. In addition, they found that the ICU Callousness and Uncaring subdimensions were highly intercorrelated, but only modestly correlated with the Unemotional dimension. Litzman’s et al.’s design harnessed the descriptive power of general personality, allowing them to conclude that CU traits are instead better conceptualized as “C and U” traits given that these two trait complexes are related to substantially different personality dimensions.

More generally, a better understanding of the rich interconnections between child and adolescent psychopathy dimensions, on the one hand, and general personality, on the other, should shed light on the structure and nature of youth psychopathy. Such information can assist us with identifying how personality traits combine or interact statistically (see Recommendation # 5) to give rise to the full clinical picture of this condition. It should also help us to better grasp how psychopathy is similar to, and different from, other conditions, including other personality disorders. Furthermore, as the findings of Litzman et al. (2013) demonstrate, viewing psychopathy dimensions from the prism of normal personality can sometimes yield valuable insights regarding the heterogeneity hiding within psychopathy scales previously presumed to be unidimensional.

Finally, this methodological approach can help to address the question of what, if any, unique information is afforded by

the full construct of youth psychopathy above and beyond general personality traits. It is possible that once we burrow down the lower-order level of major personality trait domains (e.g., reversed conscientiousness, reversed neuroticism), psychopathy provides little or no additional information above and beyond general personality, but this hypothesis merits more systematic investigation.

Recommendation # 3: Examine the Specificity of Findings to Psychopathy as Opposed to Other Disorders

Many and arguably most studies on psychopathy, including those in this Special Section, examine this condition in isolation. In fairness, the propensity to study only one condition in published investigations is hardly unique to psychopathy research. For example, approximately 90% of articles in three premier psychiatry journals (*American Journal of Psychiatry*, *Biological Psychiatry*, and *JAMA Psychiatry*, formerly, *Archives of General Psychiatry*) focus on a single DSM disorder, and typically compare individuals with this disorder with nonclinical comparison participants (Tabb 2018). The problem is that without inclusion of well-validated indices of other disorders, ascertaining the specificity of one's results to a given disorder becomes extremely challenging (Garber and Hollon 1991).

In this regard, an important direction in psychopathy research will be to examine the specificity of findings to other personality disorders, especially Cluster B (dramatic, emotional) conditions. Admittedly, diagnosing personality disorders can be extremely challenging in adolescence and especially childhood, and doing so is typically inadvisable unless the behavioral patterns in question are clearly persistent, pervasive, and pathological and unlikely to be attributable to a specific developmental stage (American Psychiatric Association 2013). This limitation notwithstanding, in future work it will be important to ascertain the extent to which CU traits and other psychopathy subdimensions, including interpersonal and behavioral features, afford incremental validity in the statistical prediction of relevant outcomes, such as CD severity and stability, above and beyond the features of other conditions, such as narcissistic, borderline, and histrionic personality disorders. It is entirely possible, for example, that at least some features of borderline personality disorder, such as impulse control deficits and affective instability, are better predictors of antisocial behavior in adolescence and adulthood than are features of psychopathy (see also Sansone and Sansone 2012).

Incorporating measures of other disorders, including other personality disorders, as well as other traits of psychopathy, may help to address the parsimonious “more is worse” rival hypothesis that lurks in the subtext of several articles in this

Special Section, especially Frogner et al., Colins et al., and Andershed et al.. That is, perhaps the full condition of psychopathy statistically predicts worse outcomes than do CU traits alone merely because the presence of more traits of psychopathy is tied to greater severity. Consistent with this possibility, the broader psychopathology literature suggests that comorbidity (but see Lilienfeld et al. 1994, for a critique of the modal use of this term in psychopathology research) tends to be a marker of severity, with the presence of more co-occurring disorders being linked to greater concurrent impairment and more detrimental longitudinal outcomes (Clark et al. 1995).

Still, there are potential and theoretically intriguing exceptions to this rule. For example, in some (Walker et al. 1991) but not all (Kendall et al. 2001) studies of children and adolescents with CD, the presence of co-occurring depressive or anxiety disorders tends to be associated with lower severity, less pronounced emotion recognition deficits, and more benign outcomes (Short et al. 2016; Walker et al. 1991). These paradoxical findings suggest that like two heads, two disorders may sometimes be better – or at least less impairing – than one (see also Lilienfeld 2003). Furthermore, these results, which require further replication, may reflect the fact that the presence of a co-occurring internalizing disorder in an individual with CD is a bellwether of heightened guilt, anxiety, and the like, in turn suggesting a lower likelihood of marked psychopathic traits. Similarly, among psychopathic adults with high levels of Factor II (antisocial lifestyle) features, high levels of Factor I (affective and interpersonal) features tend to be tied to more successful phenotypic expressions of psychopathy (Ishikawa et al. 2001), suggesting that a simple “more is worse” hypothesis is not always faithful to reality. Again, a more fine-grained examination of co-occurring disorders and traits - including psychopathic features - among children and adolescents with CD should shed light on whether and when the presence of additional psychopathology enhances or attenuates risk.

Recommendation # 4: Examine Cooperative Suppressor Effects

If psychopathy indeed comprises multiple etiologically distinct subdimensions, and if these subdimensions are associated with different psychologically meaningful external correlates, then controlling statistically for their shared variance should reveal even more distinctive relations with these correlates. The counterintuitive phenomenon of cooperative suppression arises when two variables are positively correlated, and when controlling statistically for one variable increases (rather than decreases, as in the more common statistical case of redundancy) the association of the other variable with one or more external criteria. Cooperative suppression effects

often point to the existence of distinctive processes underlying these two variables (Paulhus et al. 2004; Watson et al. 2013).

Notably, a number of studies in the child and adolescent (e.g. Frick et al. 1999) and adult (e.g., Hicks and Patrick 2006) psychopathy literatures reveal the operation of cooperative suppressor effects, whereby controlling statistically for Factor I features increases the statistical association between Factor II features and maladaptive correlates, and vice-versa for Factor II features. Such findings are consistent with the possibility that such statistical control reduces the impact of either method variance (e.g., response biases) or nonspecific psychopathology, thereby “clearing the brush” for more psychologically distinctive dimensions to emerge.

None of the articles in this Special Section explicitly examines the possibility of cooperative suppression, but this analytic approach would appear to be worthwhile to adopt in future studies to clarify the multidimensionality of childhood and adolescent psychopathy. Because suppressor effects are often sample specific and challenging to replicate (Maassen and Bakker 2001), it will be essential to ensure that such effects emerge across multiple samples. In addition, such analyses must be conducted with the caveat that the residualized psychopathy dimensions are often quite different in meaning and content from the original dimensions (Lynam et al. 2006; Sleep et al. 2017).

Recommendation # 5: Examine Statistical Interactions Among Psychopathy Subdimensions

As observed earlier, one intriguing but insufficiently discussed possibility is that psychopathy is not a classical syndrome (Lilienfeld 2013). Instead, psychopathy may be a hybrid configuration of attributes that come together to yield an interpersonally malignant condition. Indeed, one might reasonably contend that Cleckley’s (1941) influential conceptualization of psychopathy as a “mask of sanity” is inherently configural, as Cleckley regarded psychopathy as hybrid condition characterized by the simultaneous presence of two largely contradictory attributes: a veneer of seemingly healthy psychological functioning conjoined with an affectively impoverished interior (also see Lilienfeld et al. [in press-a](#), [b](#); Patrick 2006).

If this configural model of psychopathy is correct, the subdimensions of psychopathy should interact statistically to produce problematic outcomes. Impressively, both Fanti et al. (2018) and Somma et al. (2018) demonstrate that the three-way statistical interaction among the interpersonal, affective, and behavioral features of youth psychopathy provide incremental information in statistically predicting important outcomes above and beyond their main effects alone. These results suggest that contrary to classical syndromal views, which imply that a simple addition of features captures

dysfunction and/or impairment, psychopathy may be more than the sum of its parts. Although the conclusions of Fanti et al. and Somma et al. are bolstered by previous work demonstrating this three-way interaction (e.g., Colins et al. 2014), they will require further independent replication in view of the notorious difficulty of replicating statistical interactions, especially those of a higher-order (Cronbach 1975). The examination of such subdimensions should become *de rigueur* in the psychopathy literature, including research on youth psychopathy, to allow for more compelling corroboration or refutation of configural models of psychopathy, which bear important implications for this condition’s conceptualization, measurement, and etiology.

Concluding Thoughts

In aggregate, this Special Section reminds us that a full comprehension of the enigmatic condition of psychopathy will ultimately require an acknowledgement of its multidimensional nature. Specifically, it will await a better understanding of its subdimensions, their interrelations, placement within the general personality domain, physiological correlates, and their genetic and environmental underpinnings.

To be certain, the five recommendations I have outlined are far from exhaustive, as there are numerous other fruitful avenues of investigation for youth psychopathy research. Two others are worth highlighting briefly here. First, it would behoove youth psychopathy researchers to forge closer connections with well-supported models of antisocial behavior that draw on learning theory, such as Patterson’s influential coercive model (Patterson et al. 1989). By doing so, they could help to address the largely unresolved question of why psychopathic youth often persist in behavior that is maladaptive in the long term in spite of negative consequences. It is plausible that their antisocial actions are intermittently reinforced by others (e.g., parents, teachers, peers), rendering these behaviors resistant to extinction. Such studies should be most informative if conducted within a longitudinal framework, allowing investigators to examine how the transaction between psychopathic behaviors and others’ reactions to them unfolds over time. Second, psychopathy is associated with pronounced interpersonal manifestations (Vitacco and Kosson 2010), such as showmanship, a willingness to violate interpersonal boundaries, and a penchant for charming others. In future research on youth psychopathy, it will be important to examine not merely global antisocial outcomes, but problematic interpersonal behaviors that might be expected to be largely specific to Cleckley (1941) psychopathy, such as manipulation, deception, and conning.

More speculatively, the articles in this Special Section raise the radical possibility that what we term “psychopathy” is not merely one thing. The philosopher Ludwig Wittgenstein

(1953) argued famously that language can deceive us; once we acquire a word for something, we may be lured into the trap of believing that this “some thing” is “one thing” when in fact it subsumes a host of different things that share a loose family resemblance. Philosophers of psychiatry have further observed that most of us tend to conceptualize mental disorders in essentialist terms, presuming them to be distinct entities (“natural kinds”) even when they are not (Haslam and Ernst 2002). Similarly, our field’s collective use of the word “psychopathy” may deceive us into thinking that this condition is monolithic when it may instead reflect a fuzzy prototype that comprises several separable entities.

Regardless of the merits of this conjecture, it seems increasingly likely that the dogged pursuit of simplicity in the psychopathy domain, such as the search for unitary (single causation) models of this condition’s etiology, has led us astray (see also Lilienfeld et al. 2016). To make adequate progress in the detection, etiology, treatment, and prevention of psychopathy, we must embrace its multifactorial complexity, steering clear of the Scylla of an exclusive focus on only one of this condition’s subdimensions and the Charybdis of an exclusive focus on this condition as a global entity.

Compliance with Ethical Standards

Conflict of Interest Scott O. Lilienfeld declare that he have no conflict of interest.

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