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Psychopathy Deconstructed and Reconstructed: Identifying and Assembling the Personality Building Blocks of Cleckley's Chimera

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Abstract

The psychopathy field has long been beset by confusion and contention regarding the boundaries and features of this chimerical condition. We propose that this disagreement stems largely from the historical separation between psychopathy and basic personality psychology. Using findings from a meta-analysis of the correlations between the Psychopathy Checklist-Revised (PCL-R) and normal-range personality traits as a launching point, we (a) deconstruct widely used measures of psychopathy into their constituent subdimensions and (b) examine the associations of these subdimensions with higher-order and lower-order personality dimensions drawn from the Big Five and Big Three frameworks. Our review of the adult psychopathy literature reveals broad agreement that psychopathy measures are imbued with low Agreeableness and low Conscientiousness. Nevertheless, substantial disagreement revolves around the place of largely adaptive features, especially high agentic Extraversion, low Neuroticism, and high Openness, within the psychopathy construct. We propose that ongoing debates regarding the nature and boundaries of psychopathy reflect a focus on two differing operationalizations of this condition, each of which reflects a different "species" of individual.

What is psychopathy? Readers might be forgiven for presuming that the disciplines of personality psychology and psychopathology have by now achieved a reasonable level of consensus regarding the answer to this question. A Google Scholar search performed in March 2014 containing the keyword "psychopathy" yielded over 21,000 scholarly works over the past decade (since 2004). That admittedly imprecise figure translates into a mean of nearly six published manuscripts per day featuring coverage of psychopathy. Moreover, 2014 heralds the 10th anniversary of the formation of a professional organization devoted exclusively to the study of psychopathy (see Hare & Neumann, 2010). Clearly, the science of psychopathy is booming (see Patrick, 2006b, and Salekin & Lynam, 2011, for comprehensive reviews).

Yet lurking beneath this intense flurry of recent scholarly activity, one detects a sense of unease among scholars in the field. In contrast to most domains of psychopathology research, "psychopathy-ology" is marked by a striking absence of agreement regarding several fundamental assumptions. Most notably, major figures in the field appear to be sharply divided on the central question of what psychopathy even is. This lack of consensus is not new. Forty years ago, the great British psychiatrist Sir Aubrey Lewis (1974) wrote:

> The diagnostic subgroupings of psychiatry seldom have sharp and definite limits. Some are worse than others in this respect. Worst of all is psychopathic personality, with its wavering outlines. Its outline will not be firm until much more is known about its genetics, psychopathology, and neuropathology. (p.139)

Has the state of affairs improved discernibly in the four decades since Lewis issued his gloomy proclamation? By and large, we maintain that it has not.

Some readers may regard this verdict as excessively harsh. After all, the past several decades have witnessed promising advances concerning psychopathy's assessment and diagnosis

(Lilienfeld, 1998), neuroscientific correlates (Glenn & Raine, 2013), and genetic and environmental architecture (Skeem, Polaschek, Patrick, & Lilienfeld, 2011). Yet, in many other respects, all is not well in the land of psychopathy. A capsule summary of several ongoing flashpoints of contention should suffice to drive this point home.

- There is marked disagreement regarding whether psychopathy is unidimensional (e.g., Neumann, Hare, & Newman, 2007) or multidimensional (e.g., Neumann, Malterer, & Newman, 2008) at a higher-order level. This controversy bears on the fundamental question of whether it makes sense to speak of psychopathy as a single entity.
- There is sharp disagreement regarding whether potentially adaptive features, such as social and physical boldness, are part and parcel of psychopathy (e.g., Lilienfeld, Patrick, et al., 2012; Patrick, Venables, & Drislane, 2013), or whether they are incidental or irrelevant to this construct (e.g., Lynam & Miller, 2012; Miller & Lynam, 2012; see Crego & Widiger, 2015).
- More broadly, there is an absence of consensus regarding the core features of psychopathy. For example, the triarchic model of psychopathy (Patrick, Fowles, & Krueger, 2009) posits that three overarching dimensions, namely, boldness, disinhibition, and meanness, combine to yield the full clinical portrait of psychopathy. Yet some prominent authors have variously argued that (a) boldness is not an important feature of psychopathy (Miller & Lynam, 2012); (b) disinhibition is merely a nonspecific correlate of psychopathy or downstream consequence of psychopathy rather than a component of this condition per se (Cooke, Michie, Hart, & Clark, 2004); and (c) meanness, especially when extreme, is absent in prototypical psychopathy (Cleckley, 1941/1988). Hence, for each ostensibly central dimension of the triarchic model, one can find scholars who gainsay its very relevance to psychopathy.
- There is disagreement regarding whether psychopathy is a classical syndrome, that is, a condition marked by covarying signs and symptoms (Lilienfeld, 2013; Lynam & Miller, 2012). Indeed, the three primary dimensions of one widely used self-report psychopathy measure, the Psychopathic Personality Inventory (PPI; Lilienfeld & Andrews, 1996), are weakly intercorrelated (Malterer, Lilienfeld, Neumann, & Newman, 2010). Moreover, these dimensions, as well as those of several other psychopathy measures, sometimes fractionate in opposing directions in their associations with external correlates. For example, whereas the first major dimension of these measures (which assesses at least some of the affective and interpersonal deficits of psychopathy) correlates negatively with dispositional depression and vulnerability, the second major dimension (which assesses an antisocial and impulsive lifestyle) correlates positively with these traits (Derefinko & Lynam, 2006).
- The correlations among putatively comparable indices of certain psychopathy dimensions are often low. For example, although total scores on widely used self-report measures of psychopathy tend to be highly correlated, scores on their constituent dimensions, especially those assessing affective and interpersonal features, are frequently modest or negligible (Lilienfeld & Fowler, 2006; Malterer et al., 2010).
- It is unclear whether antisocial behaviors are (a) integral to psychopathy (Hare & Neumann, 2010) or (b) merely sequelae of psychopathy (Skeem & Cooke, 2010).

These disputes are hardly quibbles. If researchers cannot agree on whether psychopathy is one condition or several, or on whether the traits that some researchers view as essential to the condition are even relevant to it, the field is bound to be in intellectual disarray. Furthermore, to the extent that certain dimensions of psychopathy measures that are designed to measure cognate constructs exhibit weak intercorrelations, cumulative research progress is likely to be hindered (Lynam & Widiger, 2007).

In this article, we advance a "diagnosis" for much of the field's persisting confusion regarding the nature and boundaries of psychopathy. Specifically, we contend that much of the present mayhem in the psychopathy literature stems from the long-standing schism between the domains of psychopathy and personality (see also Ball, 2001; Lynam & Derefinko, 2006). The impetus for bridging the traditionally disparate areas of psychopathy and personality stems from several bodies of research. Growing data demonstrate that both total and factor scores on psychopathy measures are, with few potential exceptions, well captured by scores on indices of normal-range personality traits, such as Antagonism (reversed Agreeableness) and low Conscientiousness (Decuyper, De Pauw, De Fruyt, De Bolle, & De Clercq, 2009; Hicklin & Widiger, 2005). Moreover, burgeoning evidence indicates that psychopathy is a heterogeneous condition, probably reflecting a combination of traits derived from multiple lower-order and higher-order personality dimensions (Lilienfeld & Fowler, 2006; Patrick et al., 2009). In addition, data from taxometric studies (Meehl & Golden, 1982) of both interview-based and self-report measures strongly suggest that psychopathy is underpinned by one or more dimensions rather than by a taxon (a genuine category in nature; Edens, Marcus, Lilienfeld, & Poythress, 2006; Marcus, John, & Edens, 2004). Although taxometric data do not conclusively demonstrate that these dimensions reflect normal-range personality traits, they are consonant with this hypothesis. Moreover, item response theory analyses indicate that the PPI subscales and the scales of a widely used measure of normal-range personality, namely, the Multidimensional Personality Questionnaire, detect individual differences at approximately the same latent trait levels (Walton, Roberts, Krueger, Blonigen, & Hicks, 2008). This finding buttresses the contention that at least some psychopathy measures assess normal-range personality dimensions.

TWO OVERARCHING CONCEPTUAL APPROACHES TO PSYCHOPATHY

At the risk of drawing an overly sharp distinction, we can differentiate between two approaches to the conceptualization of psychopathy. In a classic article, Lewin (1935) distinguished Aristotelian from Galilean modes of thinking in science. The Aristotelian approach posits that entities in nature are characterized by underlying essences. According to this view, physical phenomena, such as motion, and psychological phenomena, such as psychopathy, are produced by unique processes inherent to them. For Aristotle, a boulder plummets quickly to the ground because it harbors the latent essence of heaviness, whereas a feather falls slowly to the ground because it harbors the latent essence of lightness. The Aristotelian position emphasizes dichotomies. In contrast, the Galilean mode of thinking emphasizes universal processes shared by all phenomena. Rocks and feathers are not qualitatively different in their properties, and they are instead governed by the same principles of motion as are all other objects. The Galilean position emphasizes continuities. Just as important, it emphasizes commonalities among superficially different phenomena. Indeed, the history of science teaches us that many or most advances derive from discovering underlying linkages among phenomena previously assumed to be distinct (Ackerman & Heggestad, 1997).

Lewin (1935), endorsing the Galilean view, observed that the distinction between these two modes of thinking applies to psychopathology as well: "like the distinction between earthly and heavenly, the no less valuative distinction between 'normal' and 'pathological' has for a long time differentiated two fields of psychological fact and thus separated the phenomena which are fundamentally most nearly related" (p. 3). Lewin argued presciently that psychology's stubborn insistence on essences has retarded its scientific progress by erecting artificial intellectual barriers across interconnected domains of inquiry (see also Lilienfeld & Marino, 1999).

Indeed, the lion's share of the psychopathy literature has until recently been decidedly Aristotelian.[1] Most scholars have regarded psychopathy as *sui generis*, standing largely or entirely apart from normal-range personality traits and even from overlapping personality disorders (e.g., narcissistic personality disorder, borderline personality disorder). Consonant with this view, most etiological models posited to explain psychopathy have been assumed to apply uniquely to this condition.

Accordingly, investigators have long pursued a single "source trait" (Cattell, 1957) or specific causal agent that accounts for most or all of the features of psychopathy (see Meehl, 1977, for a discussion of "specific etiology"). The quixotic search for what we term the "psychopathy spirochete," in reference to the syphilis bacterium that turned out to be the sole underlying cause of general paresis, has become the holy grail for psychopathy researchers (see Kendler, 2005, for a broader discussion). For example, over the past half century or so, theorists have posited variously that psychopathy is attributable to (a) a high threshold for experiencing fear (Lykken, 1957, 1995), (b) deficient empathy (Gough, 1960), (c) underarousal (Quay, 1965), (d) deficits in response modulation (Patterson & Newman, 1993), (e) efferent inhibition of fear-related reactions (Lilienfeld, 1992), (f) deficits in executive functioning (Gorenstein, 1982), (g) left hemisphere deficits (Suchy & Kosson, 2006), (h) a deficient violence inhibition mechanism that responds inadequately to cues of others' distress (Blair, 2001), or (i) dysfunction in paralimbic brain systems (Kiehl, 2006), among several other models. Despite their often substantial differences, these etiological frameworks appear to share three key assumptions:

(a) psychopathy is a single entity, at least at a higher-order level; (b) this entity is underpinned largely or entirely by a single causal agent; and (c) this causal agent is specific to psychopathy.

We suspect that most, if not all, of these models capture at least a "slice" of psychopathy's etiology. For example, the fearlessness model (Lykken, 1995) may help to explain psychopaths' charm, dominance, and deficient morality (White & Frick, 2010), whereas the response modulation model (Newman & Kosson, 1986) may help to explain psychopaths' deficient impulse control, especially when reward cues are prominent. In this respect, all of these models have provided valuable heuristic signposts for research. At the same time, none has succeeded in accounting for the full phenomenology of psychopathy. We maintain that this is because these models are premised on an assumption that may no longer be tenable, namely, the proposition that psychopathy is a single latent entity. As the literature we will review illustrates, evidence suggests that psychopathy is an amalgam of personality traits drawn from multiple dimensions that are not necessarily highly correlated (Lynam & Widiger, 2007).

Indeed, a Galilean perspective on psychopathy would incline us to view the effort to isolate a single source trait or etiological agent with skepticism. If psychopathy is not underpinned by a single "essence," but is instead a combination or configuration of traits drawn from diverse higher-order and lower-order dimensions of personality (Lynam & Derefinko, 2006), then etiological efforts might more profitably be directed toward better understanding (a) the causal underpinnings of these dimensions and (b) the ways in which these dimensions combine additively or interact multiplicatively to yield the clinical picture of psychopathy.

With this background in mind, our goals are twofold. First, we examine assessment efforts to decompose competing operationalizations of psychopathy into personality-based subdimensions. Second, we place these attempts within the context of well-substantiated models of personality structure. By doing so, we intend to underscore both commonalities and differences across operationalizations of psychopathy. Although this comparison will not resolve ongoing debates regarding the boundaries of psychopathy (e.g., Lilienfeld,

Patrick, et al., 2012; Lynam & Miller, 2012), it promises to clarify the nature and extent of these differences.

PSYCHOPATHY: CLINICAL AND HISTORICAL CONCEPTIONS

Although descriptions of psychopathy date back to the late 18th- and 19th-century observations of Pinel and Morel (France), Prichard (England), and Kraepelin (Germany), among others (Millon & Davis, 1998), the modern clinical conception of psychopathy has been shaped primarily by the writings of Hervey Cleckley (1941/1988; see also Karpman, 1941), who delineated 16 criteria that captured the essence of the prototypical psychopath. Cleckley contended that psychopathy is associated with such features as superficial charm, guiltlessness, callousness, dishonesty, egocentricity, incapacity for deep love, absence of anxiety, lack of insight, poor judgment, and failure to follow a coherent life plan. Although Cleckley did not attempt to link his criteria explicitly to trait models of personality, many of his hallmark characteristics of psychopathy, such as lack of anxiety and failure to follow a coherent life plan, display clear linkages to well-established personality dispositions, such as reversed neuroticism and disinhibition/reversed constraint (see Tellegen & Waller, 2008), respectively.

According to Cleckley, the psychopath is a chimera (Patrick, 2006a). He or she, usually he, appears to be something he or she is not. The prototypical psychopath makes an appealing first impression on others that conceals a darker and more affectively empty interior. The chameleon-like nature of the psychopath may be what makes this hybrid creature both interpersonally alluring and interpersonally dangerous (Lilienfeld, 2013)—alluring because he is charismatic, confident, and excitement seeking, and dangerous because he can lure us into a false sense of trust, as in the prototype of the confidence ("con") artist.

The Cleckley psychopath is traditionally regarded as the "primary" psychopath (Karpman, 1941; see also Levenson, Kiehl, & Fitzpatrick, 1995; Lykken, 1995), namely, the genuine psychopath whose deficits do not stem from antecedent psychopathological conditions. The primary psychopath is commonly distinguished from the "secondary" psychopath or "pseudopsychopath," whose deficits presumably stem from other conditions, such as anxiety or mood disorders. In classic clinical descriptions (e.g., Karpman, 1941), secondary psychopaths are typically regarded as equally prone to antisocial and criminal behaviors as are primary psychopaths. In contrast to primary psychopaths, however, they are presumed to be capable of guilt, empathy, deep love, and loyalty to others.

Although the Cleckley criteria were influential in early research on psychopathy (Hare, 1970; Lykken, 1957), the lack of standardization of these criteria was an impediment to scientific progress. This state of affairs changed with the research program of Robert Hare, who developed reliable and construct-valid measures of the Cleckley criteria using an iterative process of test development. These important efforts culminated in the construction of the Psychopathy Checklist (PCL; Hare, 1980), now the PCL-R (Hare, 1991/2003), which built on the Cleckley criteria but included additional features, including several antisocial and criminal behaviors. The PCL-R, which is a semistructured interview that incorporates corroborative (e.g., criminal file) information, is the most extensively validated measure of psychopathy (Hare & Neumann, 2008). For example, the PCL-R displays theoretically meaningful correlations with self-report, laboratory, and psychophysiological measures (Hare, 1991/2003). The PCL-R has been adapted and extended downwardly to adolescents (the Psychopathy Checklist: Youth Version, or PCL:YV; Forth, Kosson, & Hare, 2003) and to nonclinical samples (the Psychopathy Checklist: Screening Version, or PCL:SV; Hart, Hare, & Cox, 1996).

Although early studies on the PCL, PCL-R, and their derivatives relied exclusively on total scores as indices of psychopathy, research has increasingly focused on two broad factor-analytically derived dimensions that account for much of the covariation among the items on these measures (Harpur, Hare, & Hakstian, 1989). The first dimension, often simply called Factor 1, assesses the core interpersonal and affective features of psychopathy, including grandiose sense of self-worth, lack of guilt, and callousness. The second dimension, often simply called Factor 2, assesses an antisocial and impulsive lifestyle (Hare, 1991/2003). Some later researchers have developed more fine-grained factor models of the PCL-R, such as three-factor (Cooke & Michie, 2001) and four-factor (Hare, 1991/2003) models, both of which distinguish affective from interpersonal facets within Factor 1.

Despite the PCL-R's psychometric strengths, it is time- and labor-intensive, and not typically appropriate for use in nonclinical (e.g., student, community) samples given the need for corroborative historical information (Lilienfeld, 1998). Accordingly, the past two decades have witnessed the emergence of several well-validated and widely used self-report measures of psychopathy (Fowler & Lilienfeld, 2013). Although the use of self-report measures to detect psychopathy has frequently met with skepticism in view of psychopaths' well-known propensities toward dishonesty and deficient insight (Hart, Forth, & Hare, 1991), recent evidence demonstrates that such indices (a) exhibit many of the same external correlates as does the PCL-R, including moderate to high correlations with observer ratings of psychopathy, laboratory indicators (e.g., poor passive avoidance learning in go-no-go paradigms), and psychophysiological markers (e.g., low electrodermal classical conditioning to aversive stimuli; see Lilienfeld & Fowler, 2006); (b) converge highly with informant reports of individuals' psychopathic traits (Miller, Jones, & Lynam, 2011); and (c) tend to be moderately *negatively* correlated with measures of social desirability and impression management, suggesting that psychopathic respondents are

willing to admit to at least some unsavory traits and behaviors (Ray et al., 2013). Hence, there is compelling evidence that most or all psychopathic traits can be validly detected by self-report indices in research settings.

PSYCHOPATHY AS PERSONALITY: META-ANALYSIS OF THE PCL-R AS A CASE EXAMPLE

For the purpose of this article, we adopt two different, but complementary, models of personality structure as overarching frameworks for identifying the personality correlates of psychopathy measures (see Naragon-Gainey & Watson, 2012) within a more encompassing nomological network of well-supported personality constructs.

The Big Five and Big Three

First, we use the Five-Factor (Big Five) Model (FFM; Costa & McCrae, 1992; Goldberg, 1993; Tupes & Christal, 1961), which subdivides the broad terrain of personality into the five dimensions of Extraversion, Agreeableness (vs. Antagonism), Neuroticism, Conscientiousness, and Openness to Experience, the latter often more succinctly called Openness. In the familiar operationalization of the FFM using the Revised Neuroticism Extraversion Openness Inventory (NEO PI-R; McCrae & Costa, 2010), each of these dimensions is subdivided into six lower-order facets. Although some authors distinguish the FFM from the Big Five (with the former being largely explanatory and the latter largely descriptive; John & Robins, 1993), we use the term *Big Five* in the remainder of the article for simplicity as well as for parallelism with the Big Three model, which we discuss next.

Second, we adopt the three-factor (Big Three) model, most widely associated with the work of Eysenck (Eysenck & Eysenck, 1975) and Tellegen (Tellegen & Waller, 2008). In Eysenck's model, the personality factor space is subdivided into three dimensions of Extraversion, Neuroticism, and Psychoticism. The first two dimensions are similar to those in the Big Five model, whereas Psychoticism (which is almost certainly misnamed, as it bears only weak relations with psychosis proneness; Chapman, Chapman, Kwapil, Eckblad, & Zinser, 1994) is closely aligned with disinhibition, although it also contains significant components of callousness and vindictiveness. Tellegen's allied and now more widely adopted model posits three major dimensions of Positive Emotionality (PEM), which is similar to although broader than Extraversion.; Negative Emotionality (NEM), which is similar to although broader than Neuroticism; and Constraint (CON), which is largely isomorphic with reversed Eysenckian Psychoticism, or more precisely, disinhibition (Tellegen & Waller, 2008). On Tellegen's influential Multidimensional Personality Questionnaire (MPQ; Tellegen, in press), each of these three "superfactors" (higher-order dimensions) is underpinned by several lower-order dimensions. Specifically, PEM is marked by high factor loadings on the Wellbeing, Social Potency, Social Closeness, and Achievement lower-order dimensions; NEM is marked by high factor loadings on the Stress Reaction, Aggression, and Alienation lower-order dimensions; and CON is marked by high factor loadings on the Harm Avoidance, Control (vs. Impulsiveness), and Traditionalism lower-order dimensions. An 11th dimension of Absorption does not load substantially on any of these three dimensions (although it has modest positive hyperplane loadings on both PEM and NEM), and it is often treated as a stand-alone dimension.

Despite their noteworthy differences, the Big Three and Big Five models of personality structure are complementary in several ways (Goldberg & Rosolack, 1994; Markon, Krueger, & Watson, 2005; Watson, Clark, & Harkness, 1994). For example, in an undergraduate sample, Church (1994) found that PEM largely subsumes FFM Extraversion and some features of Conscientiousness (such as Achievement-Striving), NEM largely subsumes Neuroticism and reversed Agreeableness, and CON largely subsumes most features of Conscientiousness (such as Self-Discipline) and much of reversed Openness. Hence, these two models appear to capture much of the same personality "real estate," but at different levels of specificity.

Meta-Analysis of the PCL Instruments and Personality

To examine the hypothesis that psychopathy can be described at least in part as a combination of traits drawn from extant models of personality structure, we conducted a meta-analysis of the association between the PCL instruments and the personality dimensions of the Big Five and Big Three models as assessed by self-report measures (see also Lynam & Derefinko, 2006). We elected to focus our meta-analysis on the PCL instruments for two major reasons: They (a) are the most extensively validated measures of psychopathy and have almost certainly shaped the contemporary understanding of psychopathy more than all other psychopathy measures and (b) rely on different modes of assessment than do questionnaires, and therefore minimize potential threats arising from method covariance. Specifically, questionnaires rely on self-report (S) data, whereas the PCL-R relies on a combination of rater (R) and lifetime (L) data (see Block, 1977, and Cattell, 1968, for discussions of differing personality data sources).

Our meta-analysis updates and extends the quantitative synthesis by Lynam and Derefinko (2006) by (a) incorporating studies on the interrelations between PCL measures and personality measures that have appeared in print since their review, and (b) examining the personality correlates (including Openness, on which they did not report due to a paucity of data) of the two major PCL factors as well as the separable

affective and interpersonal facets within Factor 1, thereby providing a relatively fine-grained "personality map" of the correlates of the PCL and its constituent factors. In all cases, we extracted data on zero-order correlations.

Using the search terms *psychopathy*, *psychopathic*, *personality*, *Big Three*, *Big Five*, *five factor model*, *Eysenck*, and *Tellegen*, we located studies that examined the relation between (a) the PCL and its variants (PCL-R, PCL:YV, PCL:SV) and (b) measures of either the Big Five or the Big Three. In the case of the latter structure, we combined studies using the Eysenck Personality Questionnaire and MPQ, given their conceptual and empirical commonalities (with minor exceptions, the findings for the two operationalizations of the Big Three yielded comparable results).

As can be seen in Table 1, from a Big Five perspective ($k = 10$, $N = 1{,}827$), PCL total scores largely reflect low Agreeableness (with a medium effect size) and, to a lesser extent, low Conscientiousness (with a small effect size). PCL Factor 1 scores reflect low Agreeableness (again, with a medium effect size), with a lesser contribution from Extraversion (with a small effect size), whereas PCL Factor 2 scores similarly reflect low Agreeableness (again, with a medium effect size), with secondary contributions from Neuroticism (with a small effect size) and reversed Conscientiousness (with a medium effect size).

These findings broadly corroborate previous conclusions (e.g., Lynam & Widiger, 2007) that reversed Conscientiousness is the principal feature differentiating PCL Factor 2 from PCL Factor 1, although they run counter to the assertion (Lynam & Widiger, 2007, p. 172) that Extraversion is more characteristic of PCL Factor 2 than PCL Factor I. To the contrary, they suggest that PCL Factor 1, but not Factor 2, bears a slight positive association with Extraversion, perhaps bearing out Cleckley's (1941/1988) contention that the classical psychopath is marked by gregariousness and savoir faire: "alert and friendly his attitude, he is easy to talk to and seems to have a good number of genuine interests" (p. 338).

From a Big Three perspective ($k = 20$, $N = 3{,}137$), PCL total scores reflect a combination of high NEM (with a small effect size) and reversed CON/Psychoticism (with a small to medium effect size). These findings dovetail with those of the Big Five in suggesting that PCL total scores are linked primarily to dysphoric disinhibition. The Big Three analyses further reveal that PCL Factor 1 scores are associated with high PEM and reversed CON/Psychoticism (albeit both with small effect sizes), whereas PCL Factor 2 scores are associated primarily with reversed CON/Psychoticism (with a medium effect size), with a lesser contribution from NEM (with a small to medium effect size). These findings corroborate those derived from the Big Five analyses in suggesting that PCL Factor 1 is tied to Extraversion (a major component of PEM), whereas PCL Factor 2 is tied to Neuroticism and a broader propensity toward negative affect. Paralleling the Big Five finding that Factor 2 is more highly associated with reversed Conscientiousness than is Factor 1, these findings suggest that Factor 2 is more associated with disinhibition, although they also reveal a small association between Factor 1 and disinhibition.

Table 1 also displays the combined results of the published studies that examined the relations between the PCL at the lower-order facet level (using the model developed by Cooke & Michie, 2001) and both the Big Five ($k = 3$) and Big Three ($k = 2$) models. As can be seen, the Interpersonal facet relates positively to both Extraversion within the Big Five model and the allied dimension of PEM within the Big Three model (both with medium effect sizes), and to reversed Neuroticism, Conscientiousness, and Openness (all with small to medium effect sizes) within the Big Five model; the relations between the Interpersonal facet and the other two Big Three dimensions were not statistically significant. The Affective facet generally bears weak associations with personality dimensions, the lone exception being NEM within the Big Three model and reversed Agreeableness in the Big Five model (with a small effect size). These findings, although limited to a handful of studies, suggest that the PCL-R Interpersonal facet is tied to

Table 1 Correlations Between PCL Scores and Normal-Range Personality Measures

	PCL Total	PCL Factor 1	PCL Factor 2	PCL Factor 1: Interpersonal	PCL Factor 1: Affective
Big Three					
PEM/Extraversion	.02	.12*	−.05°	.28***	−.04
NEM/Neuroticism	.14***	.01	.21***	−.13	.12**
CON (Reversed)/Psychoticism	.23***	.10**	.34***	−.06	−.05
Big Five					
Extraversion	.02	.13*	.01	.25**	.04
Agreeableness	−.32***	−.31**	−.35***	−.12	−.24**
Neuroticism	.06°	.08	.15**	−.20°	−.01
Conscientiousness	−.14***	.01	−.27***	.15	.00
Openness	.01	.05	.05	.18**	.00

Note. PCL = Psychopathy Checklist; PEM = positive emotionality; NEM = negative emotionality; CON = constraint. ***Big 3 Analyses:*** PCL total with PEM/Extraversion ($k = 15$; $N = 2{,}310$); PCL total with NEM/Neuroticism ($k = 20$; $N = 3{,}137$); PCL total with CON/Psychoticism ($k = 18$; $N = 3{,}137$); PCL-1 with PEM/Extraversion ($k = 13$; $N = 1{,}422$); PCL-1 with NEM/Neuroticism ($k = 14$; $N = 1{,}852$); PCL-1 with CON/Psychoticism ($k = 12$; $N = 1{,}852$); PCL-2 with PEM/Extraversion ($k = 9$; $N = 1{,}422$); PCL-2 with NEM/Neuroticism ($k = 12$; $N = 1{,}852$); PCL-2 with CON/Psychoticism ($k = 10$; $N = 1{,}852$). ***Big 5 Analyses:*** PCL total ($k = 10$; $N = 1{,}827$); PCL Factor 1 ($k = 9$; $N = 1{,}707$); PCL Factor 2 ($k = 7$; $N = 1{,}707$). ***PCL Factor 1Facet Analyses:*** Big Three ($k = 2$; $N = 590$); Big Five ($k = 3$; $N = 1{,}359$). °$p < .1$. *$p < .05$. **$p < .01$. ***$p < .001$.

seemingly adaptive functioning, especially stable (i.e., nonneurotic) Extraversion and Conscientiousness, whereas the Affective facet is tied primarily to Antagonism. More broadly, these findings support the "dissection" of PCL-R Factor 1 into separable Interpersonal and Affective facets, given that these facets appear to bear different personality correlates (see also Skeem, Miller, Mulvey, Tiemann, & Monahan, 2005).

In summary, our meta-analysis, which updates and expands that of Lynam and Derefinko (2006), supports their contention that psychopathy and its constituent dimensions, as operationalized by the PCL and its progeny, can be described at least partly in terms of normal-range personality dimensions. PCL psychopathy appears to be largely an admixture of low Agreeableness and low Conscientiousness, although the PCL factors contain varying contributions of Neuroticism and Extraversion. At the same time, the significant correlations are in general modest in magnitude. To a large extent, that is because the domain-level correlations obscure more pronounced associations at the lower-order facet level, as is evident from the divergent correlates of the two PCL factors. More broadly, given that the findings provide evidence that the PCL factors exhibit different personality correlates, these results lend support to efforts to subdivide psychopathy into lower-order dimensions.

Although our analysis is a useful launching point for mapping the relations between psychopathy and personality, we concur with Lynam and Widiger (2007) that the PCL and its derivatives may not ultimately be the optimal measures for identifying the personality structure of psychopathy. Because the PCL consists largely of items assessing dispositions (e.g., impulsiveness) and behaviors (e.g., pathological lying, sexual promiscuity, criminal versatility) that are almost certainly complex admixtures of multiple personality traits, it is not an ideal vehicle for deconstructing psychopathy into constituent personality subdimensions. The relatively recent efforts to decompose the PCL-R dimensions into lower-order facets (Cooke & Michie, 2001; Hare, 1991/2003) may mitigate this concern, although the research literature linking these facets to broader personality traits is limited. Hence, we now turn to measures of psychopathy whose subdimensions are more explicitly dispositional in nature.

DECONSTRUCTING PSYCHOPATHY: PSYCHOPATHY MEASURES AND TRAIT SUBDIMENSIONS

As noted earlier, the last two decades have brought forth a wealth of self-report psychopathy measures for adult populations. One of these measures, the Levenson Self-Report Psychopathy Scale (LSRP; Levenson et al., 1995), adheres closely to the PCL two-factor model by distinguishing primary from secondary psychopathy, with the primary psychopathy dimension theoretically aligned with PCL Factor 1 and the secondary psychopathy dimension theoretically aligned with PCL Factor 2 (although the research evidence for this correspondence is mixed; see Brinkley, Schmitt, Smith, & Newman, 2001). Given the LSRP's conceptual affinity with the PCL and its emphasis on primary and secondary psychopathy rather than on explicit personality dispositions, we do not review this measure in detail. It is worth noting, however, that the LSRP factors bear close associations with established trait personality dimensions. In particular, the LSRP Primary Psychopathy scale is associated primarily with reversed Agreeableness (and to a lesser extent reversed Conscientiousness), whereas the LSRP Secondary Psychopathy scale is associated primarily with Neuroticism and reversed Conscientiousness (Miller, Gaughan, & Pryor, 2009; see also Ross, Lutz, & Bailey, 2004).[2]

In contrast, a number of other measures of psychopathy, most relying on self-report, have decomposed this construct into more explicitly dispositional subscales. In the following section, we canvass the current status of efforts to deconstruct adult psychopathy measures into constituent subdimensions. This review should shed light on the linkages between psychopathy and personality, as well as on the sources of similarities and differences among alternative conceptualizations and operationalizations of psychopathy.

Self-Report Psychopathy Scale

The Self-Report Psychopathy Scale (SRP; Paulhus, Neumann, & Hare, in press) has gone through several iterations, and it is now in its third major version (SRP-III). The measure was initially modeled closely after the PCL (Hare, 1980) and displayed a two-factor structure. Nevertheless, the SRP-III, which contains 64 items, displays a replicable four-factor structure (Neal & Sellbom, 2012) consisting of Interpersonal Manipulation (IM), Callous Affect (CA), Erratic Lifestyle (EL), and Antisocial Behavior (AB) subdimensions. These four factors are moderately to highly correlated (e.g., Neal & Sellbom, 2012).

In a sample of 290 undergraduates, Gaughan, Miller, and Lynam (2012) administered the SRP-III in conjunction with the NEO PI-R. They found that IM was significantly associated ($r = -.72$) with reversed Agreeableness and, to a lesser extent, reversed Conscientiousness ($r = -.25$). Although IM was not significantly associated with domain-level Extraversion or Neuroticism, it was significantly associated with several NEO PI-R lower-order facets of Extraversion (Assertiveness and Excitement Seeking positively and Positive Emotions negatively) and Neuroticism (Angry Hostility and Impulsiveness) facets. At the domain level, CA was significantly associated with reversed Agreeableness ($r = -.64$) and, to a lesser extent, reversed Extraversion ($r = -.17$) and reversed Openness ($r = -.29$). At the facet level, CA fractionated in opposing directions with Neuroticism facets (Anxiety and Vulnerability negatively and Angry Hostility positively), accounting for its nonsignificant association with Neuroticism at the domain level. At the domain level, EL was marked by negative

associations with Agreeableness (r = −.48) and Conscientiousness (r = −.47). EL fractionated in opposing directions with both Extraversion (Warmth and Positive Emotions negatively and Assertiveness, Activity, and Excitement Seeking positively) and Neuroticism (Self-Consciousness negatively and Angry Hostility and Impulsiveness positively) facets, accounting for its nonsignificant associations with both dimensions at the domain level. Finally, AB was, like EL, negatively associated with both Agreeableness (r = −.27) and Conscientiousness (r = .20), although its correlations with both dimensions were less pronounced than for EL. We did not locate any published studies on the relation between the four SRP-III dimensions and Big Three personality dimensions. These findings corroborate those of our PCL meta-analysis in indicating that reversed Agreeableness (Antagonism) courses through all SRP-III dimensions. Nevertheless, the SRP-III dimensions reflect varying contributions of other Big Five traits, including Extraversion and Conscientiousness. In addition, these findings underscore the importance of examining personality dimensions at the lower-order (facet) level because psychopathy factors sometimes fractionate in opposing directions with personality dimensions. This is especially the case with Extraversion and Neuroticism, which are heterogeneous (Harkness, Tellegen, & Waller, 1995; Tellegen & Waller, 2008). For example, Extraversion contains both an agentic (surgent) and a communal component, the former of which is tied to such traits as assertiveness and dominance, and the latter to such traits as warmth and need for intimacy.

The Psychopathic Personality Inventory-Revised

The Psychopathic Personality Inventory-Revised (PPI-R; Lilienfeld & Widows, 2005), originally the Psychopathic Personality Inventory (PPI), was developed by Lilienfeld and Andrews (1996) using an exploratory approach to test construction (Tellegen & Waller, 2008) in which candidate items drawn from the psychopathy literature were subjected to iterative exploratory factor analyses and revisions across multiple rounds of measure development. The current version of the measure, the PPI-R, consists of 154 items composing eight lower-order content scales. These eight content scales are Machiavellian Egocentricity, which assesses a ruthless willingness to exploit others; Social Influence (formerly Social Potency), which assesses surgency and social poise; Fearlessness, which assesses a lack of anticipatory anxiety in the face of imminent danger; Rebellious Nonconformity (formerly Impulsive Nonconformity), which assesses a disdain for authority and willingness to flout social conventions; Carefree Nonplanfulness, which assesses an insouciant propensity to act without deliberation; Blame Externalization, which assesses a tendency to place responsibility for one's shortcomings on others; Stress Immunity, which assesses emotional resilience in anticipation of anxiety-provoking circumstances; and Coldheartedness, which assesses a deficiency in social emotions, such as guilt, empathy, and love (Lilienfeld & Widows, 2005). In contrast to the factors of the SRP-III and most other psychopathy measures, these eight subscales do not show a pattern of perfect positive manifold, as some of the intercorrelations (e.g., between Blame Externalization and Stress Immunity) are negative (Lilienfeld & Andrews, 1996; Witt, Donnellan, & Blonigen, 2009). This finding suggests that PPI-assessed psychopathy is not a classical syndrome, that is, a condition marked by signs and symptoms that covary across individuals (Lilienfeld, 2013; see also Crego & Widiger, 2015).

Several studies have examined the personality correlates of these eight subscales using the PPI or the PPI-R, which correlates highly with its parent measure (Ray, Poythress, Weir, & Rickelm, 2009). Unpublished data from an undergraduate sample ($N = 217$), kindly supplied to us by Joshua Miller of the University of Georgia, provide a detailed mapping of these subscales onto the NEO PI-R. In broad brush, Machiavellian Egocentricity is related primarily to reversed Agreeableness and reversed Conscientiousness, along with the Hostility facet of Neuroticism; Social Influence to Extraversion and to several reversed Neuroticism facets (especially Self-Consciousness and Vulnerability to Stress); Fearlessness to several facets drawn from Extraversion (e.g., Excitement Seeking) and Openness (e.g., Actions) and to facets of reversed Neuroticism (e.g., Anxiety), Conscientiousness (e.g., Deliberation), and Agreeableness (e.g., Straightforwardness); Rebellious Nonconformity to Openness and reversed Agreeableness and Conscientiousness; Carefree Nonplanfulness to all facets of reversed Conscientiousness and to some facets of reversed Agreeableness (e.g., Altruism); Blame Externalization to reversed Agreeableness and to some facets of reversed Neuroticism (e.g., Hostility) and reversed Conscientiousness (e.g., Dutifulness); Stress Immunity to reversed Neuroticism (especially Anxiety, Depression, and Vulnerability to Stress), Extraversion, and most domains of Openness; and Coldheartedness to facets drawn from all Big Five dimensions, including reversed Neuroticism (e.g., Anxiety), reversed Extraversion (e.g., Warmth), reversed Openness (e.g., Feelings), reversed Conscientiousness (e.g., Achievement Striving), and all six facets of reversed Agreeableness.

Data on the relation between MPQ scales and the PPI subscales flesh out these associations. Using a short version of the MPQ in a sample of undergraduates ($N = 113$), Lilienfeld and Andrews (1996) found that Machiavellian Egocentricity was related primarily to Aggression (a component of NEM); Social Influence to Social Potency and, to a lesser extent, other markers of PEM; Fearlessness to reversed Harm Avoidance and, to a lesser extent, other markers of CON; Rebellious Nonconformity to reversed Harm Avoidance and, to a lesser extent, other markers of CON, including Traditionalism; Carefree Nonplanfulness to reversed Control and Traditionalism and to most markers of reversed PEM; Blame Externalization to Alienation and Stress Reaction (both components of NEM); Stress Immunity to reversed Stress Reaction and Alienation

and positively to most markers of PEM, including Wellbeing; and Coldheartedness to reversed Absorption. Coldheartedness fractionated in its associations with NEM markers, displaying a modest positive correlation with Aggression but modest negative correlations with Stress Reaction and Alienation. Corroborating the findings from the NEO PI-R, these analyses indicate that the PPI lower-order dimensions draw on lower-order traits derived from all major personality dimensions, including Absorption.

Factor analyses later revealed that seven of these eight subscales often, but not always (Neumann et al., 2008; Smith, Edens, & Vaughn, 2011), coalesce into two higher-order dimensions: Fearless Dominance (FD) and Self-Centered Impulsivity (SCI, also called Impulsive Antisociality; Benning, Patrick, Hicks, Blonigen, & Krueger, 2003). FD is marked by high loadings on the Social Influence, Fearlessness, and Stress Immunity content (lower-order) scales and appears to reflect social and physical boldness, in conjunction with emotional resilience. SCI is marked by high loadings on the Machiavellian Egocentricity, Rebellious Nonconformity, Carefree Nonplanfulness, and Blame Externalization content scales (see Patrick et al., 2009). Consistent with the nonsyndromal nature of PPI-assessed psychopathy, the correlation between FD and SCI is low, typically on the order of $r = .15$ (Malterer et al., 2010; Marcus, Fulton, & Edens, 2012). Coldheartedness, which does not load highly on either dimension, is sometimes treated as a stand-alone dimension in analyses. A more recent questionnaire, the Triarchic Psychopathy Measure (TriPM; Patrick, 2010) provides alternative, and perhaps factorially purer, indicators of the dimensions of Boldness, Disinhibition, and Meanness, which map onto FD, SCI, and Coldheartedness, respectively (see Patrick & Drislane, 2015).

Several investigators have examined the association between the two PPI higher-order factors (and in some cases, Coldheartedness) and the Big Five. In a meta-analysis ($k = 10$), with *N*s ranging from 2,298 to 2,261, Miller and Lynam (2012) reported that PPI FD was related to reversed Neuroticism ($r = -50$) and Extraversion ($r = .50$), with a smaller contribution from Openness ($r = .25$), most likely reflecting a willingness to try new activities; the associations with Agreeableness and Conscientiousness were negligible. In contrast, PPI SCI reflected contributions from reversed Agreeableness ($r = -.49$) and reversed Conscientiousness ($r = -.51$), with a lesser contribution from Neuroticism ($r = .30$); the associations with Extraversion and Openness were negligible. These results support Miller and Lynam's (2012) contention that FD can be viewed largely as stable Extraversion, albeit with a modest Openness component. These findings also help to explain why the two major PPI dimensions often fractionate in opposing directions in their correlations with distress-related psychopathology, such as anxiety and somatic complaints (e.g., Patrick, Edens, Poythress, Lilienfeld, & Benning, 2006), because these two dimensions are correlated in opposite directions with Neuroticism.

From the perspective of the Big Three, a meta-analysis by Marcus et al. (2012) showed that PPI FD is positively associated ($r = .39$) with PEM ($k = 16$, $N = 5{,}715$), negatively associated ($r = -.35$) with NEM ($k = 25$, $N = 8{,}571$), and not significantly associated ($r = -.04$) with CON ($k = 16$, $N = 5{,}280$). The lattermost association should be qualified, however, by the fact that FD is moderately negatively associated with one element of CON, namely, Harm Avoidance (Benning, Patrick, & Iacono, 2005). Drawing on the same studies used to examine the correlates of FD, Marcus et al. (2012) found that PPI SCI was nonsignificantly correlated with PEM ($r = -.02$), positively associated with NEM ($r = .30$), and negatively associated with CON ($r = -.44$). The opposing associations between the two major PPI dimensions with NEM parallel those with Big Five Neuroticism (Lynam & Miller, 2012). Finally, Marcus et al. (2012) reported that PPI Coldheartedness was negatively associated ($r = -22$) with PEM ($k = 7$), positively associated ($r = .19$) with NEM ($k = 9$), and negatively associated ($r = -.15$) with CON ($k = 7$; *N*s were not reported for these analyses). Taken together, these findings again suggest that FD and SCI are correlated in opposing ways, with a predisposition toward negative emotions (see also Miller & Lynam, 2012).

The finding that FD is tied to adaptive attributes, particularly stable Extraversion, remains a major point of contention in the psychopathy literature (Lilienfeld, Patrick, et al., 2012; Miller & Lynam, 2012; Patrick et al., 2013). Some authors argue that this result calls into question the relevance of FD to psychopathy, whereas others argue that it is consistent with long-standing descriptions of psychopathy, such as those of Cleckley (1941/1988).

Using Omnibus Personality Measures to Estimate PPI Dimensions

Corroborating the view that psychopathy is largely a constellation of traits drawn from well-established personality dimensions, several investigators have developed formulas for estimating the two major PPI dimensions from widely used, broadband (omnibus) measures of both normal and abnormal personality. Such efforts now allow researchers to extract psychopathy estimates from extant personality data sets.

Using a double cross-validation design, Benning et al. (2005; see also Benning et al., 2003) found that a regression-based formula using the 11 lower-order scales of the MPQ accounted for between 67% and 68% of the variance in PPI FD scores and 63% and 65% of the variance in PPI SCI scores. FD was best explained statistically by scores on MPQ Social Potency, reversed Stress Reaction, and reversed Harm Avoidance, whereas SCI was best explained statistically by scores on MPQ reversed Social Closeness, Alienation, Aggression, and reversed Control and reversed Traditionalism. As hypothesized, Benning et al. (2005) found that MPQ-estimated FD was negatively associated with internalizing symptoms and

fearlessness, and positively associated with narcissism and the PCL-R Interpersonal facet. In contrast, MPQ-estimated SCI was positively associated with internalizing symptoms, trait anxiety, and other markers of NEM and PCL-R Factor 2, and negatively associated with a measure of socialization. Numerous other studies indicate that the MPQ-estimated PPI higher-order dimensions display theoretically predicted correlates. For example, in undergraduate samples, Witt and Donnellan (2008) found that MPQ-estimated FD was positively associated with self-esteem and narcissism and negatively associated with angry rumination, whereas MPQ-estimated SCI was positively associated with counterproductive school behaviors, criminality, infidelity, and angry rumination.

Other researchers have derived estimates of PPI dimensions from the NEO PI-R (see also Witt et al., 2009). Indeed, Gaughan, Miller, Pryor, and Lynam (2009) found that NEO PI-R facets accounted for more variance in statistical components (weighted variates) derived from self-report psychopathy measures than did the MPQ lower-order scales, probably because the NEO PI-R offers a more differentiated portrait of personality at the lower-order level. Using an undergraduate sample ($N = 293$), Ross, Benning, Patrick, Thompson, and Thurston (2009) developed a regression formula to estimate the two major PPI dimensions from NEO PI-R facet scores. PPI FD was best predicted by low scores on most facets of Neuroticism (especially Anxiety, Depression, Self-Consciousness, and Vulnerability) and high scores on all facets of Extraversion (especially Assertiveness), and, to a less marked extent, high scores on two facets of Openness (Actions and Ideas), low scores on three facets of Agreeableness (especially Modesty and Compliance), and high scores on one facet of Conscientiousness (Competence). In contrast, PPI SCI was best predicted by high scores on most Neuroticism facets (especially Angry Hostility and Impulsiveness) and low scores on virtually all facets of Agreeableness and Conscientiousness (correlations with Openness were all nonsignificant). Interestingly, PPI SCI fractionated in its relations with Extraversion, with Warmth displaying a moderate negative association and Excitement Seeking a moderate positive association. Coldheartedness was not well predicted by most NEO PI-R facet scales, although it was associated with low scores on Positive Emotions (a facet of Extraversion), Straightforwardness and Modesty (facets of Agreeableness), and Openness to Fantasy and Openness to Values (facets of Openness).

Nevertheless, little is known regarding the relation between NEO PI-R-estimated PPI dimensions and external variables. In a psychohistorical study of the U.S. presidents up to and including George W. Bush ($N = 42$), Lilienfeld, Waldman, et al. (2012) found that estimated FD scores, obtained from ratings by experts and biographers on each president, correlated positively with independent ratings of presidential performance, including overall leadership, public persuasiveness, and crisis management. In contrast, estimated Impulsive Antisociality scores were associated with expert ratings of unethical behavior and congressional impeachment resolutions.

More recently, Sellbom et al. (2012) developed regression equations to extract PPI higher-order dimensions from the scales of the Minnesota Multiphasic Personality Inventory-2 Restructured Form (MMPI-2-RF; Tellegen & Ben-Porath, 2008). Using a combined sample of undergraduates and prisoners ($N = 825$), they found that PPI FD was best predicted by low scores on RC7 (Dysfunctional Negative Emotions); high scores on RC8 (Aberrant Experiences), RC9 (Hypomanic Activation), and Disaffiliativeness; and low scores on Multiple Specific Fears, Interpersonal Passivity, Social Avoidance, and Shyness. In contrast, PPI SCI was best predicted by high scores on RC4 (Antisocial Behavior), RC6 (Ideas of Persecution), RC9 (Hypomanic Activation), and, to a lesser extent, Disaffiliativeness. Cross-validated multiple regression equations showed that the MMPI-2-RF scales accounted for 66% and 69% of the variance in FD and SCI scores, respectively. Sellbom et al. (2012) found that MMPI-2-RF-estimated PPI scores displayed a predicted pattern of convergent and discriminant validity with PCL:SV dimensions. Specifically, estimated FD scores correlated significantly ($r = .45$) with PCL:SV Factor 1 scores but nonsignificantly ($r = .21$) with Factor 2 scores; conversely, estimated SCI scores correlated significantly ($r = .57$) with Factor 2 scores but nonsignificantly ($r = .25$) with Factor 1 scores. In addition, estimated FD scores correlated negatively with measures of fear, distress, anxiety, depression, and submissiveness, whereas estimated SCI scores correlated positively with history of criminal behavior, physical abuse of others, anger, and impulsivity. Consistent with previous research, estimated FD was mostly a composite of stable Extraversion, with a modest contribution from Openness, whereas SCI was mostly a composite of low Agreeableness and low Conscientiousness, with a modest contribution from Neuroticism.

In sum, there is ample evidence that the two major PPI dimensions can be captured reasonably well by scores on extant personality measures. Nevertheless, this finding comes with two caveats. First, Coldheartedness appears to be relatively difficult to capture from most extant personality measures, corroborating the assertion that the trait of social affiliation is underrepresented in most broadband personality measures (Depue & Morrone-Strupinsky, 2005). Second, because correlation weights derived from a sample often do not hold up well in subsequent regression models (Waller & Jones, 2010), demonstrating comparable patterns of PPI-estimated dimensions derived from different measures will be crucial in future research.

Psychopathy Resemblance Index

An alternative approach to measuring psychopathy is the use of expert ratings of personality dimensions. Drawing on efforts by Widiger and Lynam (1998) to "translate" the PCL-R items into the language of the NEO PI-R facets, Miller, Lynam, Widiger, and Leukefeld (2001) asked 16 psychopathy experts to rate the prototypical male and female psychopath on 30

Likert-type scales corresponding to each NEO PI-R facet. In contrast to the prototype developed by Widiger and Lynam (1998), Miller et al. (2001) did not limit their prototype to PCL-R items. Miller et al. found that the inter-rater reliability of ratings across experts was moderate to high, with profile correlations averaging .75 for the male prototype and .55 for the female prototype. Because of the higher level of agreement for male psychopathy, these ratings were used to generate the Psychopathy Resemblance Index (PRI; Miller et al., 2001).

As Miller et al. (2001) noted, the PRI reveals the typical psychopath to be marked by low scores across all facets of Agreeableness, several facets of Conscientiousness (Dutifulness, Self-Discipline, Deliberation), several facets of Neuroticism (Anxiety, Depression, Self-Consciousness, Vulnerability), one facet of Extraversion (Warmth), and one facet of Openness (Openness to Experience), and by high scores in one facet of Conscientiousness (Competence), one facet of Neuroticism (Impulsiveness), two facets of Extraversion (Assertiveness, Excitement Seeking), and one facet of Openness (Actions). These ratings again highlight not only the relevance of reversed Agreeableness and Conscientiousness to psychopathy, but also the relevance of traits from other Big Five domains. In addition, they underscore the importance of differentiating broad personality traits at the lower-order (facet) level. For example, according to Miller and colleagues' (2001) expert raters, the prototypical psychopath is elevated on the agentic components of Extraversion but low on the communal components.

The PRI can be used in research by correlating (using an intraclass Q correlation, or within-person correlation, in which participants are treated as variables) each participant's scores with the prototype, thereby yielding a resemblance index reflecting the extent to which each participant is similar to the prototypical psychopath. Adopting this approach in an undergraduate sample ($n = 242$ males, $n = 259$ females), Miller et al. (2001) reported that the PRI was significantly associated with the LSRP primary and secondary factors (especially the former), indices of antisocial personality disorder, delinquency, and substance abuse symptoms in men and women; in addition, there were modest, but often statistically significant, negative associations with symptoms of depression and anxiety. All of these findings lend support to the construct validity of the PRI, as they are consistent with the conceptualization of the prototypical psychopath as disinhibited and largely immune from distress (Lilienfeld & Andrews, 1996).

Subsequent research provides additional evidence for the construct validity of the PRI. In a sample of undergraduates ($N = 211$), Miller and Lynam (2003) found that PRI scores were significantly associated with the variety of (a) drugs used, (b) property crimes committed, and (c) violent crimes committed. These scores were also associated with self-reported risky sexual behavior, self-reported proactive and reactive aggression, aggressiveness in a laboratory provocation paradigm, disinclination to delay monetary gratification in a laboratory task, and a tendency to endorse aggression in response to an ambiguous interpersonal vignette. Perhaps most impressively, the PRI demonstrated statistically significant incremental validity above and beyond antisocial behavior for several outcome measures, including laboratory-based aggression, suggesting that it is not merely an index of nonspecific behavioral deviance. In addition, in a sample of adolescent male offenders ($N = 1{,}170$), Cauffman, Kimonis, Dmitrieva, and Monahan (2009) found that the PRI was significantly, albeit modestly ($r = .26$), associated with total scores on the PCL:YV. Nevertheless, because the authors did not separate the two PCL:YV factors, this finding may underestimate the PRI's convergent validity.

Elemental Psychopathy Assessment

One limitation of the NEO PI-R is its paucity of coverage of items assessing extreme levels of personality traits. As a consequence, it may not adequately capture the severe levels of personality pathology characteristic of psychopathy. To address this gap and to more precisely decompose psychopathy into personality subdimensions, Lynam et al. (2011) developed the Elemental Psychopathy Assessment (EPA) as an extension of their previous work on elemental models of psychopathy (e.g., Miller et al., 2001). Lynam et al. (2011) identified 18 Big Five traits most highly associated with psychopathy in previous analyses (e.g., Lynam & Widiger, 2007): low Agreeableness (e.g., Manipulation, Arrogance), both low and high elements of Neuroticism depending on the facet (e.g., low Anxiety and Depression, high Anger/Hostility), low Conscientiousness (e.g., Rashness), and both low and high elements of Extraversion depending on the facet (e.g., low Warmth, high Dominance). In its current form, the EPA contains 178 items that provide scores on global psychopathy, as well as on 18 subscales.

These associations with Big Five domains have since been grouped into five broad dimensions: Interpersonal Antagonism (low Agreeableness), Pan-impulsivity (e.g., high impulsiveness, deliberation), Interpersonal Dominance (i.e., high assertiveness), Lack of Self-Directed Negative Affect (e.g., low anxiety, depression), and Negative Other-Directed Affect (i.e., high anger). This grouping bears out contentions that psychopathy is a composite of dimensions drawn primarily from low Agreeableness and low Conscientiousness, with significant contributions from other Big Five domains, including those assessing PPI-R FD. A factor analysis by Few, Miller, and Lynam (2013) in undergraduates yielded a somewhat different structure, however, suggesting that the EPA may be underpinned by four dimensions of antagonism, narcissism, disinhibition, and emotional stability.

The EPA has demonstrated construct validity with a broad spectrum of theoretically meaningful external correlates, such as self and "thin slice" (brief film clip) Big Five ratings, personality disorders related to psychopathy (i.e., narcissistic personality disorder, antisocial personality disorder), substance abuse, externalizing behaviors, and love styles marked by

infidelity and game playing (Lynam et al., 2011; Miller et al., 2011). The EPA also displays moderate to high levels of convergence with other prominent self-report psychopathy measures, as well as all of the subdimensions of these measures (e.g., LSRP, SRP, PPI-R; Wilson, Miller, Zeichner, Lynam, & Widiger, 2011). For example, in an undergraduate sample ($N = 116$), Wilson et al. (2011) found that the EPA was correlated $r = .57$, .59, and .55 with PPI-R FD, PPI-R SCI, and PPI-R Coldheartedness, respectively. Overall, the EPA appears to be a promising measure that provides comprehensive coverage of the major subdimensions of psychopathy.

DISCUSSION

Our review of the deconstruction of psychopathy into personality subdimensions clarifies the commonalities and differences among alternative operationalizations of this enigmatic condition. When viewed from the lens of a personality-centric perspective, several points of convergence emerge. First, from a Big Five framework, there is consensus that psychopathy is associated, at least in part, with reversed Agreeableness and reversed Conscientiousness (see also Lynam & Derefinko, 2006). Although we have focused on adult psychopathy measures, it is notable that the same broad pattern emerges for two self-report measures of child and adolescent psychopathy, namely, the Antisocial Process Screening Device (APSD; Frick & Hare, 2001) and the Youth Psychopathic Traits Inventory (YPI; Andershed, Kerr, Stattin, & Levander, 2002). For example, Salekin, Leistico, Trobst, Schrum, and Lochman (2005) found that all three facets of the ASPD were heavily saturated with disinhibition and antagonism and, to a lesser extent, negative emotionality, and Roose et al. (2012) and Sherman, Lynam, and Heyde (2013) found that the YPI dimensions were strongly correlated with Antagonism and, in some cases, reversed Conscientiousness. There is relatively less research on the relation between the Big Three and adult psychopathy, although most evidence indicates that this construct is associated with low levels of CON (high levels of Disinhibition), high levels of some elements of NEM, especially Aggression and Alienation, and low levels of communal PEM, namely, Social Closeness.

Our analysis suggests that whatever psychopathy is, it is a multifaceted organism. Psychopathy is a combination or configuration of traits drawn from multiple personality dimensions. In the psychopathy domain, at least, Galileo appears to have triumphed over Aristotle. Psychopathy is not *sui generis*; it is an amalgamation of features well known to individual difference psychologists. Moreover, if a single source trait (Cattell, 1957) underpins psychopathy, its identity remains elusive. Indeed, given that all of the traits associated with psychopathy are unlikely to spring from a unitary etiology, our analysis raises questions regarding the likely success of efforts to pinpoint the long sought-after psychopathy spirochete.

Our review also offers strong support for efforts to subdivide psychopathy into constituent dimensions, as it demonstrates that different factors of psychopathy often display markedly different personality correlates. In some cases, these subdimensions are even associated in opposing directions with such correlates, resulting in a canceling out of their net effects. If nothing else, we hope that our analysis persuades researchers to avoid exclusive reliance on psychopathy total scores in their analyses. In our view, such reliance is no longer defensible given that the subdimensions of most psychopathy measures are associated with substantially differing personality correlates.

At the same time, our review sheds light on the principal sources of divergence across competing operationalizations of psychopathy. Most notably, certain operationalizations, especially the PPI, PPI-R (Lilienfeld & Widows, 2005), and TriPM (Patrick, 2010), emphasize the roles of (a) low Neuroticism/NEM, especially its trait anxiety and vulnerability elements; (b) agentic PEM, especially assertiveness, dominance, and social potency; and (c) elements of Openness, most likely those relevant to seeking out novel experiences. In aggregate, these features compose a broader trait of FD or boldness reflecting emotional resilience, social poise, and physical fearlessness. These largely adaptive elements are present, although underrepresented, in the PCL-R (but see Neumann, Johansson, & Hare, 2013) and in measures developed principally from a PCL-R perspective, such as the LSRP and, in the child and adolescent literature not reviewed at length here, the APSD (Patrick & Drislane, 2015; Sellbom & Phillips, 2013) and the Child Psychopathy Scale developed by Lynam (1997; see Patrick & Drislane, 2015). In contrast, these features find considerable representation in the PPI, PPI-R, TriPM, and to a somewhat lesser extent, the SRP-III, PRI, and EPA. Hence, much of the disagreement in the psychopathy literature regarding the nature and boundaries of this construct revolves around the place, if any, of psychologically adaptive features within this construct.

It may be helpful to situate this debate within a historical context. The fraught construct of psychopathy (Lewis, 1974) has long been marked by two "faces," one primarily or exclusively unsuccessful and the other at least somewhat successful, at least with respect to short-term interpersonal functioning (Patrick, 2011). These protean polarities have reappeared in changing names and guises over the past century, but they display surprising conceptual convergence: the *impulsive psychopath* versus the *swindler psychopath* (Kraepelin, 1904), *antisocial personality disorder* versus *psychopathy* (Lilienfeld, 1994), *sociopathy* versus *psychopathy* (Lykken, 1995; Partridge, 1930), *secondary psychopathy* versus *primary psychopathy* (Karpman, 1941; Skeem, Poythress, Edens, Lilienfeld & Cale, 2003), *simple* versus *complex psychopathy* (Arieti, 1967), *unsuccessful psychopathy* versus *successful psychopathy* (Hall & Benning, 2006), *nonadaptive* versus *adaptive sociopathy* (Sutker & Allain, 1983), and *aggressive* versus *emotionally stable psychopathy* (Hicks, Markon, Patrick, Krueger, & Newman, 2004). Corroborating these overlapping distinctions, cluster analyses support the existence

of separable secondary and primary "subtypes" among high scorers on the PCL-R (e.g., Blagov et al., 2011) and PPI (e.g., Falkenbach, Stern, & Creevy, 2014), although these subtypes are almost certainly densifications of multiple dimensions in multivariate space rather than genuine taxa (Edens et al., 2006).

Neither face of psychopathy, we maintain, is more veridical than the other. Both afford differing windows into psychological reality. Specifically, both "species" correspond to distinctive constellations of personality traits—and perhaps intellective traits (e.g., executive functioning; Ishakawa, Raine, Lencz, Bihrle, & Lacasse, 2001) and interests—in multivariate space (Lilienfeld, 2013). Moreover, whereas the former conceptualization is syndromal, the latter is nonsyndromal, as it constitutes a malignant configuration of largely uncorrelated personality traits, including the adaptive attributes of fearless dominance, composing the chimera of the Cleckley psychopath (Lilienfeld, 2013). This model implies that the higher-order constituents of psychopathy should interact statistically to predict real-world outcomes, a provisional hypothesis that has received support in some studies (e.g., Marcus & Norris, 2014), but not others (e.g., Maples et al., 2014). In our view, the examination of this interactional hypothesis should become a major priority for future psychopathy research.

Hence, ascertaining which of these two operationalizations of psychopathy is more "valid" may not be scientifically meaningful because each construct is associated with its own nomological network, each in turn bearing its distinctive set of hypothesized convergent and discriminant correlates. Investigators who focus exclusively on only one operationalization of psychopathy should therefore bear in mind that they are touching only one part of the proverbial elephant. As a consequence, they risk overlooking personality traits essential to a complete understanding of the heterogeneous domain of psychopathy. To our eyes, the murky path toward a better comprehension of psychopathy is becoming increasingly clear: Investigators should focus on the etiology of the diverse personality traits constituting psychopathy and learn how these traits combine or interact to give rise to the full clinical picture of psychopathy.

Notes

1. We contend that the same conclusion holds for the literature on most or all *DSM* personality disorders (American Psychiatric Association, 2013; see Ball, 2001), but we focus on psychopathy here.
2. Researchers have recently developed an alternative three-factor model of the LSRP consisting of Egocentricity, Callous, and Antisocial dimensions (Brinkley, Diamond, Magaletta, & Heigel, 2008), but the personality correlates of these dimensions have yet to be examined in depth.

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