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## COMMENTARY

# The Role of Fearless Dominance in Psychopathy: Confusions, Controversies, and Clarifications

Scott O. Lilienfeld  
Emory University

Christopher J. Patrick  
Florida State University

Stephen D. Benning  
Vanderbilt University

Joanna Berg  
Emory University

Martin Sellbom  
University of Alabama

John F. Edens  
Texas A&M University

Based on their 2011 meta-analysis of the correlates of the Psychopathic Personality Inventory (PPI), Miller and Lynam (An examination of the Psychopathic Personality Inventory's nomological network: A meta-analytic review, *Personality Disorders: Theory, Research, and Treatment*, 3, 305–326) conclude that its Fearless Dominance (PPI-FD) higher-order dimension exhibits weak construct validity, leading them to question the relevance of boldness to the conceptualization and assessment of psychopathy. We examine their assertions in light of the clinical, conceptual, and empirical literatures on psychopathy. We demonstrate that Miller and Lynam's assertions (a) are sharply at odds with evidence that well-validated psychopathy measures detect both secondary and primary subtypes, the latter of which is linked to social poise and immunity to psychological distress, (b) are inconsistent with most classic clinical descriptions of psychopathy, in which fearless dominance plays a key role, (c) presume an a priori nomological network of psychopathy that leaves scant room for adaptive functioning and renders psychopathy largely equivalent to antisocial personality disorder as defined by the *Diagnostic and Statistical Manual of Mental Disorders*, (d) are premised on a misunderstanding of the role of Cleckley's "mask" of healthy adjustment in psychopathy, and (e) are contradicted by data—some reported elsewhere by Miller and Lynam themselves—that PPI-FD is moderately to highly associated with scores on several well-validated psychopathy measures, as well as with personality traits and laboratory markers classically associated with psychopathy. A scientific approach to psychopathy requires the question of whether its subdimensions are linked to adaptive functioning to be adjudicated by data, not by fiat.

*Keywords:* psychopathy, antisocial personality disorder, fearlessness

Imagine the following two-part scenario:

(A) A research team develops a self-report measure of hypomania, focused largely on

the cognitions associated with hypomanic and manic episodes. Using factor analysis, they identify five dimensions underpinning

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Scott O. Lilienfeld and Joanna Berg, Department of Psychology, Emory University; Christopher J. Patrick, Department of Psychology, Florida State University; Stephen D. Benning, Department of Psychology, Vanderbilt University; Martin Sellbom, Department of Psychology, University of Alabama; John F.

Edens, Department of Psychology, Texas A&M University.

Correspondence concerning this article should be addressed to Scott O. Lilienfeld, Department of Psychology, Emory University, 36 Eagle Row, Atlanta, GA 30322. E-mail: slilien@emory.edu

this measure; they term one of them Success Activation and Triumph over Fear. This factor consists of such items as “When I feel excited, my fears and worries are no longer real,” and “When I feel good, I am sure that everything will work out perfectly.” The authors report that this factor correlates with a questionnaire measure of hypomanic symptoms,  $r = .26, p < .001$ , offering support for its convergent validity. Yet they also find that this factor correlates positively with measures of well-being,  $r = .29, p < .001$ , and energy level/activation,  $r = .30, p < .001$ , and negatively with a measure of depression,  $r = -.15, p < .05$ .

(B) Arguing that hypomania and mania are inherently pathological, a second research team concludes that (a) the positive correlations of the Success Activation and Triumph Over Fear factor with well-being and energy, and (b) its negative correlation with depression, call its construct validity into serious question. A dimension that relates positively to psychological adjustment and immunity to distress, they contend, has no place in a measure of psychological abnormality and should be excluded from the instrument.

Is this scenario apocryphal? As it turns out, Scenario A is genuine and is recounted in a published article (see Mansell, Rigby, Tai, & Lowe, 2008). But Scenario B is fictitious. Moreover, the reasoning in B would surely strike readers familiar with the phenomenology of hypomania as suspect given that this condition is associated with several adaptive features (e.g., artistic creativity, self-confidence, experiences of joy and pride in everyday life; Gruber, 2011; Jamison, 1993). Yet this reasoning is essentially identical to that invoked by Miller and Lynam (this issue, pp. 305–326) in their meta-analysis of the correlates of the Psychopathic Personality Inventory (PPI) Fearless Dominance (FD) dimension,<sup>1</sup> a higher-order factor of boldness comprising the PPI’s Social Potency (now termed “Social Influence” in the revised version of the PPI), Stress Immunity, and Fearlessness subscales (see Lilienfeld & Andrews, 1996).

Miller and Lynam (this issue) report that PPI-FD is negatively associated with indices of negative emotionality and internalizing pathol-

ogy, including mood and anxiety symptoms, positively associated with measures of positive emotionality, sensation seeking, and behavioral activation, and negligibly correlated with measures of externalizing behavior, such as antisocial actions and substance abuse. They conclude that, taken in aggregate, these findings raise serious questions about the PPI-FD’s construct validity. “The problem for PPI FD,” they contend, “is that it captures primarily adaptive functioning” (p. 318).

In this commentary, we examine Miller and Lynam’s (this issue) assertions about the construct validity of PPI-FD and the relevance of boldness, which is assessed by PPI-FD, to psychopathy.<sup>2</sup> Although Miller and Lynam’s meta-analysis raises a number of interesting questions about the place of fearless dominance within the nomological network of the psychopathy construct, we will demonstrate that their conclusions overlook substantial bodies of clinical and empirical literature on psychopathy.

### The Two Faces of Psychopathy

Throughout much of its history, the construct of psychopathy has subsumed two distinct faces—one marked by maladjustment and distress, the other by telltale signs of adequate, even supernormal, psychological functioning coexisting with emotional detachment and poor impulse control (Fowles & Dindo, 2006; Hall & Benning, 2006; Patrick, 2011). Beginning with the classic writings of Karpman (1941), these two faces have come to be known as *secondary psychopathy* and *primary psychopathy*, respectively (see Lykken, 1995). Secondary psychopathy is characterized by antisocial behavior conjoined with high levels of anxiety and poor impulse control, and the capacity for guilt and

<sup>1</sup> Although Miller and Lynam (this issue) examine several different variants of the PPI, including the original PPI, the revised PPI, and the PPI Short Form, we refer collectively to all of these versions as the PPI, given their conceptual and empirical commonalities (e.g., see Ray, Weir, Poythress, & Rickhelm, 2011).

<sup>2</sup> Because we do not, by and large, take issue with the Miller and Lynam’s (this issue) primary conclusions regarding the PPI Self-Centered Impulsivity higher-order factor (Factor 2) or their meta-analytic comparisons of different PPI versions, we focus our commentary exclusively on their interpretations of their findings on the PPI Fearless Dominance dimension.

empathy. In contrast, primary psychopathy is similarly characterized by antisocial behavior, but with a pronounced absence of anxiety, guilt, and empathy.

The existence of these two faces has been corroborated by recent cluster-analytic studies showing that the most extensively validated measure of psychopathy, the Psychopathy Checklist–Revised (PCL-R; Hare, 2003), yields subtypes corresponding to primary and secondary psychopathy (e.g., Blagov et al., 2011; Hicks, Markon, Patrick, Krueger, & Newman, 2004). More pertinent to the present discussion are findings from two cluster-analytic studies showing that PPI-FD is a clear marker of primary psychopathy.

Hicks et al. (2004) performed a model-based cluster analysis on the lower-order scales of the Multidimensional Personality Questionnaire (MPQ) among prisoners deemed psychopaths using the PCL-R. They extracted two subtypes: *Emotionally stable* psychopaths were marked by low trait anxiety and high agentic positive emotionality, closely resembling Karpman's (1941) primary psychopaths, whereas *aggressive* psychopaths were marked by high negative emotionality, high disinhibition, and low communal positive emotionality, closely resembling Karpman's secondary psychopaths. PPI-FD, estimated using a regression-based composite of the MPQ scales, distinguished these two subgroups at a large effect size ( $d = .88$ ) and distinguished emotionally stable psychopaths from nonpsychopathic prisoners at a large effect size ( $d = .73$ ). In both cases, the emotionally stable subtype obtained higher PPI-FD scores.

Poythress et al. (2010) similarly used model-based cluster analysis, in this case to distinguish among offenders who met criteria for antisocial personality disorder (ASPD), as defined by the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)*; American Psychiatric Association, 2000). For clustering variables, they used PCL-R factor scores and several theoretically meaningful personality variables, including trait anxiety and harm avoidance. Like Hicks et al. (2004), Poythress et al. (2010) identified two subtypes (among several others) corresponding to primary and secondary psychopathy. Moreover, reanalyses from their dataset show that PPI-FD scores differentiated primary psychopathic from secondary psychopathic subtypes at a medium effect

size ( $d = .58$ ); PPI-FD scores also differentiated primary psychopaths from comparison offenders with ASPD but without psychopathy, in this case at a large effect size ( $d = .73$ ). These differences are not due solely to the fact that trait anxiety and harm avoidance (which are substantially represented in PPI-FD itself) were among the clustering variables. As Poythress and Hall (2011) showed, the Social Potency subscale within PPI-FD ( $ps < .001$ ) distinguished the primary psychopathy subtype from the secondary subtype ( $d = .55$ ) and from the comparison nonpsychopathy group ( $d = .64$ ), with primary psychopaths scoring higher in Social Potency.

These findings demonstrate that PPI-FD is a robust marker of a clinically and theoretically meaningful subtype of psychopathy that corresponds closely to primary psychopathy as delineated by Cleckley, Karpman, and others. Moreover, the study by Hicks et al. (2004) showed that this subtype is clearly detectable within a group of PCL-R psychopaths.

### Classic Clinical Descriptions of Psychopathy

Miller and Lynam (this issue) contend that the pattern of findings they observed for PPI-FD—namely, positive associations with adaptive behavior—runs counter to many or most classical clinical descriptions of psychopathy. Their analysis neglects a host of longstanding historical perspectives on psychopathy.

Specifically, Miller and Lynam (this issue) argue that “It did not seem to occur to Cleckley that the psychopath might be mistaken for a successful, well-adjusted, mentally healthy individual” (p. 318). This assertion runs counter to numerous statements in Cleckley's (1988) classic text, *The Mask of Sanity*, which demonstrate that Cleckley believed that psychopaths can readily be mistaken for normal individuals. He noted that “[t]here is nothing at all odd or queer about [the typical psychopath], and in every respect he tends to embody the concept of a well-adjusted, happy person . . . he looks like the real thing” (p. 338). Additionally, Cleckley argued that the prototypical psychopathic individual “is likely to seem free from social or emotional impediments, from the minor distortions, peculiarities, and awkwardnesses so common even among the successful” (p. 338). In-

deed, “[e]verything about him is likely to suggest desirable and superior human qualities, a robust mental health” and “[t]he results of direct psychiatric examination disclose nothing pathologic” (p. 339). These and other quotations refute Lynam and Miller’s (2011) claim that Cleckley did not perceive prototypical psychopaths as superficially normal and well-adjusted.

Cleckley (1988) was hardly alone in his views. Many other seminal thinkers in the field have observed that psychopathy is associated with features of healthy functioning. For example, Kraepelin described one of his major subtypes of psychopathy, the “morbid liar and swindler,” as charismatic, glib, and superficial (see Arrigo & Sharpley, 2001). He characterized one of his other psychopathic subtypes, “the professional criminal,” as manipulative and deceptive, but also deliberative, “well mannered and appropriate” (Millon & Davis, 2002, p. 24). Karpman (1946) described one of his two subtypes of primary psychopaths, the aggressive-predatory type, as “unteachable and unmanageable,” but observed that these individuals “may often show remarkable adaptive qualities if this be needed to satisfy an immediate or not-long-to-be-waited external goal” (p. 286); he further commented on their pronounced immunity to neurotic problems. Even McCord and McCord (1964), whose conceptualization of psychopathy was more maladaptive than Cleckley’s in its emphasis on guiltlessness and lovelessness, argued that “most observers would maintain that the psychopath has relatively little anxiety, worry, or inner conflict” (p. 12); “In fact, the psychopath is almost the antithesis of neurosis” (p. 47). More recent prominent authors have advanced comparable views. Although observing that psychopaths sometimes seem “too slick and smooth,” Hare (1993) pointed out that they “are often witty and articulate [individuals] . . . who can be amusing and entertaining conversationalists. They can be very effective at presenting themselves well and can be very likable and charming” (pp. 34–35; see Millon & Davis, 2002, for a similar description of the “disingenuous psychopath”). In their discussion of corporate psychopathy, Babiak and Hare (2006) referred to psychopaths’ propensities for charm and interpersonal manipulation as “talents,” observing that they can easily fool unwary observers during job interviews. Along similar lines, Lykken (1982) described psycho-

paths as possessing a “low fear IQ” (p. 22), suggesting that people with the genetic “talent” toward psychopathy are characterized by “boldness, aggressiveness, and charm” (p. 28). Indeed, Lykken (1957, 1995) viewed fearlessness, one of the three traits comprising PPI-FD, as the core “source trait” (Cattell, 1957) out of which the full condition of psychopathy develops.

All of the aforementioned quotations demonstrate that, contra Miller and Lynam’s (this issue) claims, the view that psychopathy is associated with certain features of healthy functioning is widespread, if not ubiquitous, in the clinical literature. Moreover, these features, including lack of anxiety, fearlessness, charm, and social poise, map closely onto the boldness construct measured by PPI-FD. Of course, the fact that traits similar to fearless dominance recur across many classical clinical descriptions of psychopathy is merely suggestive, not dispositive. Although clinical lore can sometimes be a helpful guide to the classification and diagnosis of psychopathology, it is hardly infallible. Hence, we need to turn to the research literature to ascertain whether these clinical descriptions are mirrored by empirical reality.

### Miller and Lynam’s Nomological Network

As Cronbach and Meehl (1955) observed in their exposition of construct validity, the interpretation of validation data for a measure hinges on one’s explication of a nomological network, an interlocking system of predictions linking constructs to external correlates (as well as constructs to other constructs, and correlates to other correlates). From their interpretation of the data on the correlates of PPI-FD, it is evident that Miller and Lynam (this issue) regard psychopathy as essentially mutually exclusive with adaptive functioning. They approvingly cite Hare and Neumann (2008), who asserted that “psychiatric disorders, including personality disorders, typically are seen in terms of maladjustment, not in terms of positive adjustment” (p. 247); hence, adaptive features have little or no place in the psychopathy construct.

Miller and Lynam’s (this issue) reasoning comes perilously close to being tautological. If psychopathy is defined a priori as maladaptive, then any evidence suggesting that a component of a psychopathy measure, such as PPI-FD, is adaptive must perforce indicate that this component is of doubtful relevance to psychopathy.

But on what a priori grounds should one exclude potentially adaptive correlates from a nomological network comprising subdimensions of a psychological disorder? Such exclusion is inconsistent with data on the adaptive correlates of some other unquestionably pathological conditions, such as hypomania and mania, and the rich clinical literature on psychopathy, both of which we have discussed.

Furthermore, the exclusion of adaptive correlates within a nomological network of psychopathy is contradicted by research on Factor I of the PCL-R, even though this factor focuses much more on maladaptive personality characteristics than does PPI-FD. Harpur, Hare, and Hakstian (1989) showed that PCL-R Factor I is associated with low scores on measures of anxiety and other indicators of psychological distress. Most researchers have replicated these findings and extended them to depression and other indicators of internalizing pathology, especially when the impact of method variance is controlled statistically (Blonigen et al., 2010; Hicks & Patrick, 2006). Furthermore, in an investigation of corporate professionals in training for leadership, Babiak, Neumann, and Hare (2010) reported that high scores on the PCL-R (especially on Factor I) correlated positively and significantly with ratings of a problematic management style and with lesser likelihood of being a team player; yet they also correlated positively and significantly with ratings of *superior* communication skills, creativity, and strategic thinking. In the aggregate, these findings seriously challenge the a priori exclusion of adaptive correlates from the nomological network surrounding psychopathy.

More broadly, Miller and Lynam's (this issue) nomological network renders psychopathy largely isomorphic with the *DSM-IV* (American Psychiatric Association, 2000) diagnosis of ASPD, a condition marked by a longstanding history of unsuccessful behaviors, especially antisocial and criminal actions. Yet most major scholars in the field (e.g., Hare, 2003; Kosson, Lorenz, & Newman, 2006; Lykken, 1995) concur that psychopathy and ASPD are far from synonymous (see also Lilienfeld, 1994). Specifically, measures of the core interpersonal (e.g., superficial charm) and affective (e.g., callousness) traits of psychopathy are only moderately associated with indices of ASPD, are separable from ASPD indices factor-analytically (Harpur

et al., 1989), and differ markedly from ASPD indices in many key external correlates. For example, measures of the core interpersonal and affective features of psychopathy tend to be negatively associated with suicidal ideation and actions, whereas measures of ASPD tend to be positively associated with these variables (Douglas et al., 2008). As a consequence, Miller and Lynam's nomological network blurs a crucial conceptual and empirical distinction and effectively reduces psychopathy to ASPD.

### Does PPI-FD Reflect Cleckley's Mask of Sanity?

Miller and Lynam (this issue, p. 307) take issue with Patrick's (2006) suggestion that PPI-FD "assesses, at least in part, the convincing 'mask' of sanity that Cleckley regarded as central to psychopathy" (p. 207). The "mask" to which Cleckley referred is the conjunction of low anxiety, charm, social poise, and seemingly intact intelligence in the presence of otherwise maladaptive functioning, such as recklessness and dishonesty. Miller and Lynam object to Patrick's hypothesis on the grounds that Cleckley (1988) believed that "severe disturbance lay behind this mask" (p. 318). Hence, their reasoning continues, because PPI-FD "captures primarily adaptive functioning—there is no evidence that the traits associated with PPI-FD are masking underlying personality pathology or dysfunction" (p. 318), the construct validity of PPI-FD is dubious. Their argument rests on the assumption that PPI-FD should assess at least some aspects of marked pathological functioning, because psychopathy as described by Cleckley and others is associated with serious psychological dysfunction.

Miller and Lynam's (this issue) reasoning is premised on a misunderstanding. Their analysis neglects the crucial point that PPI-FD is merely one higher-order factor comprising the PPI. As we see it (see also Fowles & Dindo, 2009), psychopathy is a combination or perhaps configuration (e.g., Lilienfeld & Fowler, 2006; Patrick, Fowles, & Krueger, 2009) of several largely separable attributes (e.g., boldness, disinhibition, meanness). From this perspective, one would not term an individual with pronounced elevations on *only* one of these attributes, such as boldness or disinhibition, "psychopathic," any more than one would term an

individual with pronounced elevations on *only* the “Success Activation and Triumph Over Fear” factor (to return to the example presented at the outset of the article), hypomanic or manic. Instead, fearless dominance, or boldness, gives rise to the full clinical picture of psychopathy *in the presence of* elevated disinhibition, meanness, or both. Contrary to Miller and Lynam’s implication, there is no requirement that PPI-FD *by itself* should be associated with maladaptive functioning. PPI-FD detects the component of psychopathy, which as we have seen has been described by Cleckley, Karpman, Hare, the McCords, and others over the years, that is linked to largely healthy functioning and immunity to distress.

### Relations Between Fearless Dominance and Other Psychopathy Measures

Miller and Lynam (this issue) contend that “PPI FD is not closely related to psychopathy . . . as operationalized by other measures of psychopathy” (p. 316). Are they correct?

In fact, the actual state of affairs is considerably more nuanced than they assert. Miller and Lynam (this issue) are correct that PPI-FD is only modestly associated with the factors of the PCL-R (or the facets nested within these factors; Hare & Neumann, 2008). Across studies, the correlation between PPI-FD and PCL-R Factor I tends to fall between .20 and .45, with most correlations at the lower end of this range; the correlation of PPI-FD with PCL-R Factor II is lower (Marcus, Fulton, & Edens, 2011). In addition, PPI-FD is only weakly, albeit sometimes significantly, positively associated with Factor I of the Levenson Primary and Secondary Psychopathy (LPSP) Scales (Levenson, Kiehl, & Fitzpatrick, 1995), a widely used self-report measure of psychopathy; its association with LPSP Factor II is negligible (Marcus et al., 2011).

Yet Miller and Lynam (this issue) do not review evidence that PPI-FD is moderately to highly associated with scores on another commonly used self-report measure of psychopathy, namely, the Hare Self-Report Psychopathy (SRP) Scale—II (SRP-II) (see Paulhus, Neumann, & Hare, in press), an instrument that the authors themselves have acknowledged displays impressive construct validity (Gaughan, Miller, Pryor, & Lynam, 2009). In a meta-

analysis of the correlates of the PPI and its factors, Marcus et al. (2011) found that across five studies comprising a total of 1,274 participants, PPI-FD was highly associated with SRP Factor I, which assesses the interpersonal and affective features of psychopathy; the aggregated correlation was .53,  $p < .001$ ,  $r$  range: .31–.60. The association between PPI-FD and SRP Factor II, which assesses an impulsive and antisocial lifestyle, was lower but still substantial; the aggregated correlation across the same five studies was .40,  $p < .001$ ,  $r$  range: .10–.48 (see also Benning, Patrick, Salekin, & Leistico, 2005).

This striking discrepancy in the correlations between PPI-FD and other self-report psychopathy measures (in this case, the LPSP vs. the SRP) may be at least partly reconcilable through the lens of the triarchic model of psychopathy (Patrick et al., 2009), which invokes the three dimensions of boldness, disinhibition, and meanness as an organizing framework for conceptualizing this condition. Recent data (Drislane, 2011; see also Sellbom & Phillips, 2011) have demonstrated that PPI-FD is substantially associated ( $r = .74$ ) with boldness as assessed by the Triarchic Psychopathy Measure (TriPM; Patrick, 2010); the association between the SRP and TriPM boldness is considerably lower, but still moderate ( $r = .31$ ); in contrast, the LPSP is entirely unrelated to TriPM boldness ( $r = -.01$ ). Hence, both the PPI-FD and the SRP index largely adaptive elements of psychopathy that are essentially absent from the LPSP. Similarly, the PCL-R, even its Factor I, appears to be only weakly saturated with boldness (mainly through its “glibness/superficial charm” and “grandiose sense of self-worth” items; Patrick et al., 2009)—indicators notably absent from the *DSM-IV* criteria for ASPD—which may account for its only modest association with PPI-FD.

Further evidence derives from studies of the associations between PPI-FD and an expert-generated prototype of psychopathy based on the five factor model (FFM) of personality. In a study not cited by Miller and Lynam (this issue), Lynam et al. (2011) found that PPI-FD scores correlated moderately to highly,  $r = .47$ ,  $p < .001$ , with FFM psychopathy prototype scores. Similarly, Ross, Benning, Patrick, Thompson, and Thurston (2009) found that PPI-FD scores correlated,  $r = .50$ ,  $p < .001$ ,

with FFM psychopathy prototype scores. These findings, in one case from the authors themselves, refute Miller and Lynam's contention that PPI-FD scores are largely unassociated with scores on other well-validated psychopathy measures.

Equally compelling data come from Miller and Lynam's own work on the Elemental Psychopathy Assessment (EPA), a global measure of psychopathy that usefully extends the FFM into domains more relevant to personality pathology. In three studies from their own research group, again not cited by Miller and Lynam (this issue), PPI-FD scores were highly and significantly associated,  $r_s = .57, .46,$  and  $.50$ , with total EPA scores (Maples, Wilson, Few, Watts, & Miller, 2011; Miller et al, 2011; Wilson, Miller, Zeichner, Lynam, & Widiger, 2011). Indeed, in interpreting their findings, Lynam et al. (2011) observed that "All three PPI-R 1 scales (i.e., Social Potency, Stress Immunity, Fearlessness) are marked by high levels of EPA Unconcern, Self-Contentment, Self-Assurance, and Invulnerability; moderate levels of EPA Dominance, Thrill-Seeking, and Arrogance; and absent or negative relations to EPA Anger, Urgency, Coldness, Distrust, Manipulation, Callousness, Disobliged, and Impersistence" (p. 121). Hence, from an EPA perspective, the prototypical high PPI-FD individual is insouciant, self-assured and self-contented, immune to the impact of negative life events, dominant, risk-taking, and arrogant. One would be hard-pressed indeed to contend that such an individual bears no resemblance to the prototypical primary psychopath. True, the high PPI-FD scorer is not especially disagreeable, impulsive, manipulative, or callous, but that pattern of findings is quite consistent with PPI-FD's construct validity; instead, these less desirable attributes are well assessed by other PPI scales that assess the disinhibition and meanness components of psychopathy (Patrick et al., 2009).

### **PPI-FD and Other Theoretically Relevant External Correlates**

Miller and Lynam (this issue) acknowledge that PPI-FD is associated with narcissistic personality traits and sensation seeking, two constructs long linked to classical descriptions of psychopathy (e.g., Cleckley, 1988; Hare, 2003).

Yet they dismiss these substantial and theoretically meaningful correlations on puzzling and poorly supported grounds. In addition, they neglect to review published evidence that PPI-FD is associated with deficient fear processing, proactive aggression, and other theoretically relevant psychopathy correlates.

### **PPI-FD and Narcissism**

First, they contend that PPI-FD's association with narcissistic personality traits does not support the construct validity of PPI-FD because the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988), on which these data are based, is largely an index of the relatively adaptive elements of narcissism. Yet, in fact, the NPI assesses a number of subtraits that are conceptually relevant to psychopathy, as described by Cleckley (1988) and others, including entitlement, vanity, superiority, and exhibitionism. Indeed, Benning, Patrick, Blonigen et al. (2005) found significant correlations between PPI-FD and all seven NPI subscales ( $r$  range:  $.23 - .61$ ). Although we agree with Miller and Lynam (this issue) that such traits can and sometimes do have adaptive correlates, this in no way vitiates their relevance to narcissism, a trait long believed relevant to primary psychopathy (Cleckley, 1988; Hare, 2003).

### **PPI-FD and Sensation Seeking**

Second, after acknowledging that PPI-FD is robustly associated (weighted average effect size =  $.47$ ; see also Marcus et al., 2011) with scores on Zuckerman's (2007) sensation seeking scale, a measure of risk taking, novelty seeking, and disinhibition—characteristics clearly associated with primary psychopathy—Miller and Lynam (this issue) explain away this association on the grounds that both PPI-FD and sensation seeking are "composed, in part, by high scores on extraversion and lower scores on neuroticism" (p. 320). But this reasoning helps to *explain* the association between PPI-FD and sensation seeking (albeit not entirely, because both include a strong component of disinhibition; Benning, Patrick, Hicks, Blonigen, & Krueger, 2003); it does not *explain it away*. It would be similarly unjustified to contend that a correlation between, say, the LPSP and a measure of passive avoidance learning (e.g., Brin-



kley, Schmitt, Smith & Newman, 2001) is irrelevant to the construct validity of the former measure on the grounds that both indices are saturated with poor impulse control. To the contrary, such a correlation offers support for the construct validity of the LPSP, given that poor impulse control is presumably associated with the externalizing deficits of psychopathy (e.g., Morgan & Lilienfeld, 2000; Yang et al., 2005).

### PPI-FD and Other Personality Correlates

Given the constraints of the specific nomological net Miller and Lynam (this issue) chose to investigate, they also do not review evidence that PPI-FD is associated with other personality correlates relevant to psychopathy. For example, two investigations (Claes et al., 2009; Poythress & Hall, 2011) revealed that PPI-FD is positively associated with functional impulsivity ( $r$  range: .52–.65 across student, prisoner, and psychiatric samples), a construct that reflects “the tendency to act with relatively little forethought when such a style is optimal” (Dickman, 1990, p. 95). Because functional impulsivity reflects a tendency to act quickly when necessary and to “seize the moment” (Smillie & Jackson, 2006, p. 48), it accords with descriptions of successful psychopaths as individuals whose largely intact executive functioning permits them to channel their otherwise antisocial tendencies into socially constructive outlets (Ishikawa, Raine, Lencz, Birhle, & Lacasse, 2001; Ross, Benning, & Adams, 2007; Widom, 1977).

Miller and Lynam (this issue) imply that PPI-FD is associated exclusively with socially desirable attributes; yet data indicate otherwise. For example, Claes et al. (2009) found positive correlations between PPI-FD and the Amorality subscale of the Minnesota Multiphasic Personality Inventory (MMPI)–2 Hypomania Scale. As Graham (2011) noted, high scorers on this subscale “perceive other people as selfish, dishonest, and opportunistic and because of these perceptions feel justified in behaving in similar ways” (p. 131). In addition, Sellbom, Ben-Porath, Lilienfeld, Patrick, and Graham (2005) reported a significant correlation between the PPI-FD and the MMPI-2 Aggressiveness scale, which reflects instrumental aggression, dominance, grandiosity, and a callous attitude toward others. Although not available to Miller and

Lynam, Sellbom et al. (2011) similarly found that PPI-FD was significantly associated with clinician-rated aggression and ASPD features based on observations of a duration of approximately one month. Furthermore, Cima and Raine (2009) found that PPI-FD was associated with self-reported proactive aggression in offender samples,  $r = .26$ ,  $p < .05$ , although its association with reactive aggression was less marked,  $r = .13$ , *ns* (see also Ostrov & Houston, 2008; Stanford, Houston, & Baldrige, 2008). This finding dovetails with the notion that primary psychopathy is preferentially associated with instrumental violence (Cornell et al., 1996), a planful and emotionally cold variant of aggression.

Miller and Lynam (this issue) contend, correctly in our view given its historical and theoretical ties to Lykken’s (1957, 1995) fearlessness construct, that PPI-FD should be negatively associated with well-validated questionnaire measures of fear. In fact, these predictions are borne out. In one study, PPI-FD correlated moderately and negatively,  $r = -.41$ ,  $p < .005$ , with the MMPI-2 Fears content scale in a student sample (Sellbom et al., 2005). In addition, several studies have demonstrated moderate to strong negative relations between PPI-FD and the Fearfulness subscale of Buss and Plomin’s (1984) EAS Temperament Survey (e.g., Benning et al., 2005). These findings run counter to Miller and Lynam’s conjecture that PPI-FD is best interpreted merely as stable extraversion, because fearfulness is not a primary marker of either neuroticism–stability or extraversion–introversion (Sylvers, Lilienfeld, & LaPrarie, 2011). Instead, these results indicate that PPI-FD is a compound of traits that includes not only stability and extraversion, but also at least one core domain of the higher-order dimension of constraint/disinhibition.

### PPI-FD and Psychophysiological Correlates

Miller and Lynam (this issue) provide incomplete coverage of PPI-FD’s psychophysiological correlates, which are widely viewed as crucial to conceptualizations of psychopathy (Lorber, 2004). For example, they contend that studies of fear-potentiated startle (FPS) do not provide evidence that high PPI-FD scorers are insensitive to fear-related cues, as would be expected from many prominent models of psy-

chopathy (e.g., Dindo & Fowles, 2011; Lykken, 1995). Nevertheless, Miller and Lynam omitted key studies from the published literature on this topic. Three additional published studies (Justus & Finn, 2007; Dvorak-Bertsch, Curtin, Rubenstein, & Newman, 2009; Anderson, Stanford, Wan, & Young, 2011) all yielded negative correlations between FPS and PPI-FD in a variety of paradigms. Combining the foregoing studies not cited by Miller and Lynam with the three studies they cited (Anderson et al., 2011; Benning, Patrick, & Iacono, 2005; Vaidyanathan et al., 2009) yields a mean association between PPI-FD and FPS of  $-.17$ , 95% confidence interval  $[-.09, -.24]$ . Thus, extant data indicate that PPI-FD is indeed associated with attenuated FPS.

Nor is FPS the only psychophysiological measure relevant to the construct validity of PPI-FD. PPI-FD is negatively related with skin conductance reactivity to aversive pictures,  $\beta = -.11$ ,  $p = .05$  (Benning, Patrick, & Iacono, 2005), and with anticipation of an uncontrollable aversive noise,  $r = -.22$ ,  $p < .05$  (Dindo & Fowles, 2011). Likewise, central psychophysiological measures—including the N2pc event-related potential (Benning & Malone, 2010) and functional magnetic resonance imaging amygdala activations (Gordon, Baird, & End, 2004)—further implicate PPI-FD in reduced processing of fear-related facial expressions. In sum, psychophysiological findings are consistent in showing PPI-FD to be associated with diminished physiological reactivity to threat, providing a link to influential models of psychopathy (Hare, 1978; Lorber, 2004; Lykken, 1957; Patrick, 1994).

### Conclusion

Miller and Lynam's (this issue) meta-analysis helps to clarify the role of PPI-FD in psychopathy and provides useful information about the correlates of this dimension. Nevertheless, their review is problematic on several grounds. Specifically, Miller and Lynam (a) neglect substantial bodies of clinical, conceptual, and empirical (e.g., cluster-analytic) literature from diverse scholars in the field who recognize a key role for boldness in psychopathy. Moreover, their meta-analysis (b) presumes a nomological network of psychopathy that largely excludes a role for psychologically adaptive correlates, de-

spite the fact that dimensions from other well-established forms of psychopathology (e.g., bipolar disorder) are associated with such correlates; (c) erroneously assumes that Cleckley's (1988) "mask" of sanity should be associated with marked pathological functioning, and (d) omits a large body of literature demonstrating that PPI-FD displays a rich and well-replicated pattern of associations with variables theoretically relevant to psychopathy, including several established psychopathy measures (e.g., SRP), personality traits associated with psychopathy (e.g., aggressiveness, fearlessness), and psychophysiological indicators of fear responding (e.g., FPS). As a consequence, their conclusion that PPI-FD is of questionable relevance to psychopathy does not withstand careful scrutiny.

Miller and Lynam might respond by contending that because they only analyzed studies of constructs "for which there were six or more effect sizes" (p. 308), they elected not to include many of the studies we reviewed. Such a defense would, in our view, miss a crucial point. Meta-analysis is a helpful tool for reducing subjectivity and clarifying findings in complex bodies of literature, but it can at best only inform, not dictate, one's conclusions (Sharpe, 1997). To the extent that a literature review overlooks key findings that do not readily lend themselves to meta-analysis, its conclusions will be selective and potentially misleading. As Carnap's (1947) "principle of total evidence" reminds us, we must consider all available pertinent data when evaluating a model's scientific status.

To a certain extent, we concur with Miller and Lynam (this issue) that "disagreements about the appropriate nomological net are simply a reflection of the active debates within the field of psychology around the question of what is psychopathy" (p. 308). Indeed, we believe that differences in our respective interpretations of the data (setting aside disparities in the literature reviewed) can be reconciled by noting that we each posit markedly different nomological networks for psychopathy. Our network predicts that elements of psychopathy are associated with adaptive attributes, whereas Miller and Lynam's network largely excludes this possibility. As Miller and Lynam observe, these contrasting a priori validation networks reflect fundamentally different conceptions of psychopathy, and are rooted in longstanding con-

troversies about the nature of the construct (e.g., Hare & Neumann, 2010; Skeem & Cooke, 2010). From this ecumenical perspective, which accords with Hume's (1746) time-honored (albeit not universally accepted; Quine, 1951) distinction between analytic and synthetic or empirical questions, one might argue that neither side is "right." Instead, each side is merely interpreting the available evidence in different, but legitimate, ways. There may well be some merit in this position.

### Two Different Nomological Networks, Two Different Psychopaths

At the same time, we contend that the nomological network we have delineated is substantially more consonant with the clinical and conceptual literatures on psychopathy, which have long recognized a key role for adaptive attributes, and with the empirical literature, which shows that some well-validated psychopathy measures (e.g., SRP-II, EPA) are substantially saturated with boldness. We further maintain that the nomological network we espouse is more consistent with the consensual view that psychopathy is a paradoxical condition (Cleckley, 1988; Hare, 1993; Lykken, 1995) characterized by the outward appearance of healthy functioning coexisting with profound emotional and cognitive deficits. In contrast, the clinical picture of psychopathy embraced by Miller and Lynam (this issue) is, to our eyes, surprisingly impoverished and incomplete. It is also unmoored from a good deal of clinical and empirical reality. It portrays psychopaths as decidedly unpleasant, mean-spirited, unreflective, and disinhibited, leaving unaddressed the puzzling question of why so many people perceive them to be superficially likable, intriguing, and even appealing (e.g., Cleckley, 1988). Miller and Lynam's psychopath, it is safe to say, would make a spectacularly unsuccessful con artist. He or she would also make for a distinctly unattractive short-term romantic partner, let alone a beguiling seducer of hapless victims. Instead, the clinical, theoretical, and empirical literatures we have reviewed show that psychopathy as classically conceptualized is a more complex and multifaceted construct than implied by the view that the "core" of psychopathy is composed of disinhibition and meanness, with boldness playing at

best a peripheral role (cf. Miller & Lynam, this issue).

### Data Versus Fiat

This is not to deny that significant questions about the role of fearless dominance in psychopathy remain. For example, although some authors maintain that the current structure of the PPI-FD higher-order dimension (involving high loadings on the Social Potency, Stress Immunity, and Fearlessness subscales) is replicable (e.g., Benning et al., 2003), others demur and lobby for alternative factor models (e.g., Neumann, Malterer, & Newman, 2008). Recent evidence from 92 studies raises the possibility that the current factor structure is more robust in college and community than in offender samples (Witt, Donnellan, Blonigen, & Patrick, 2011), although the reasons for this discrepancy require clarification. We also echo Miller and Lynam's (this issue) recommendation to examine statistical interactions between or among PPI-FD and other components of psychopathy, and concur with them that this hypothesis has not received the empirical attention it merits.<sup>3</sup> Indeed, we and others (see Lilienfeld & Fowler, 2006, pp. 126–127) have suggested that classical psychopathy can best be viewed as what industrial and organizational workers term a *compound trait* (Smith, Fischer, & Fister, 2002): a configuration of separable attributes that merge in an interpersonally meaningful fashion.

Whatever our differences, we hope that Miller and Lynam (this issue) can agree with us that the question of whether psychopathy is associated with adaptive behaviors must be decided by scientific evidence, not by fiat, and that investigators must be prepared to go wherever the data take them. A scientific approach to psychopathy, we contend, requires that the possibility of adaptive correlates be taken seriously,

<sup>3</sup> Tests of the interaction between PPI-FD and PPI Self-Centered Impulsivity in published research have not yielded significant relationships between this interaction and demographic, diagnostic, personality, or psychophysiological measures (Benning, Patrick, Blonigen et al., 2005; Benning, Patrick, & Iacono, 2005; Benning, Patrick, Salekin et al., 2005; Ross et al., 2009). However, this interaction may yet be shown to be associated with important behavioral, criminal, interpersonal, or laboratory measures in future research.

not merely ruled out on an a priori basis as inherently inconsistent with a largely pathological construct. If a psychopathy index derived from the consensual psychopathy literature, such as PPI-FD, is linked to healthy functioning, researchers must be willing to take this evidence seriously and modify their views accordingly.

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