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Elaborating on the Construct Validity of the Triarchic Psychopathy Measure in a Criminal Offender Sample

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Patrick, Fowles, and Krueger (2009) developed the triarchic conceptualization of psychopathy in an effort to integrate historical theories and contemporary measurement models. The model proposes 3 phenotypic domains of boldness, meanness, and disinhibition. Patrick (2010) developed the Triarchic Psychopathy Measure (TriPM), a 58-item self-report measure, to index these 3 domains. This study examined the construct validity of the TriPM in a sample of incarcerated offenders ($N = 141$) and found evidence of good construct validity in that the scales were related to conceptually relevant normal-range and dysfunctional personality trait criteria, as well as narcissism and deficits in empathy.

The psychopathic personality is characterized by a number of interpersonal (e.g., manipulateness, social dominance), affective (e.g., fearlessness, shallow emotions), and behavioral (e.g., poor behavioral control, aggression) characteristics (Hare, 1996; Hare & Neumann, 2008; Skeem, Polaschek, Patrick, & Lilienfeld, 2011). Despite being one of the most widely studied personality disorders, there remains significant debate in the field regarding measurement of psychopathy, particularly concerning the relationship between antisocial behavior and the disorder (Hare & Neumann, 2010; Skeem & Cooke, 2010), and the use of the construct in forensic contexts such as sentencing considerations and risk assessments (Skeem et al., 2011). This study focuses on the recently developed Triarchic Psychopathy Measure (TriPM; Patrick, 2010). Specifically, it is an examination of the construct validity of the TriPM in relation to conceptually relevant normal-range and dysfunctional personality trait criteria.

Much of this debate is intimately connected to the various conceptualizations of, and assessment approaches for, psychopathy. The Psychopathy Checklist–Revised (PCL–R; Hare, 1991/2003) remains the most widely used instrument in clinical and research settings for assessing psychopathy and has advanced a tremendous amount of research on the construct (see Hare & Neumann, 2008). Previous research on the PCL–R suggests the presence of two primary factors. The first encompasses the affective and interpersonal features of psychopathy (e.g., superficial charm, deceitfulness), and the second factor captures the lifestyle and social deviance aspects of psychopathy, such as impulsivity, irresponsibility, and antisocial behavior. More recent examinations of the PCL–R factor structure have identified three (Cooke & Michie, 2001) and four facets (Hare, 2003; Hare & Neumann, 2008). Similar work in the youth literature has moved the field from mostly two-factor structures (e.g., callous-unemotional traits and conduct problems) to three-factor structures reflecting affective (callous-unemotional),

interpersonal (narcissism, grandiosity), and behavioral (conduct problems, impulsivity) traits (see Kotler & McMahon, 2010, for a review).

Other conceptualizations of psychopathy have focused more explicitly on dimensional personality traits (e.g., Lynam, 2002; Miller, Lynam, Widiger, & Leukefeld, 2001; Widiger & Lynam, 1998) and frame the disorder as representative of low agreeableness and conscientiousness, reflecting interpersonal antagonism and poor impulse control (Lynam & Derefinko, 2006; Widiger & Lynam). A more psychopathy-specific personological model was advanced by Lilienfeld and Andrews (1996) with the development of the Psychopathic Personality Inventory (PPI). The PPI was developed to represent the core personality traits associated with Cleckley (1941/1988) and others' conceptions of psychopathy without items explicitly referencing criminal behavior and has been extensively validated in undergraduate, community, and correctional settings (see Lilienfeld & Fowler, 2006, for a review). Several studies have identified two higher order factors among the PPI's eight primary scales utilizing factor-analytic approaches. Benning, Patrick, Blonigen, Hicks, and Iacono (2005) labeled the first factor fearless dominance, which consists of three PPI scales (Social Potency, Fearlessness, and Stress Immunity) and captures social dominance, manipulateness, ability to remain calm in stressful situations, and the lack of anticipatory fear. The second factor, labeled by Benning and colleagues (2005) as impulsive antisociality, and later referred to as self-centered impulsivity in the revised version of the PPI (PPI–R; Lilienfeld & Widows, 2005), consists of four PPI scales (Machiavellian Egocentricity, Rebellious Nonconformity, Blame Externalization, and Carefree Nonplanfulness). This factor measures self-centered and reckless tendencies, impulsivity, and proneness to blame others. The remaining PPI scale, Coldheartedness, represents tendencies toward callousness and a lack of guilt. It did not load onto either factor and was assigned as a third factor on the PPI–R (Lilienfeld & Widows).

TRIARCHIC CONCEPTUALIZATION OF PSYCHOPATHY

Patrick, Fowles, and Krueger (2009) proposed the triarchic conceptualization of psychopathy in an effort to frame and integrate historical theories (e.g., Cleckley, 1941/1988;

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McCord & McCord, 1964) and contemporary measurement models (e.g., PCL–R, PPI), which differ considerably in the emphasis they place on aspects such as criminal behavior or emotional responsiveness as indicators of psychopathy. This model describes psychopathy in terms of three phenotypic domains of boldness, meanness, and disinhibition. Patrick and colleagues (2009) linked these domains to distinct developmental (e.g., difficult and fearless temperaments) and neurobiological (e.g., orbitofrontal cortex and paralimbic system) pathways.

Boldness captures many of the qualities of the disorder espoused by Cleckley (1941/1988) and Lykken (1957), including social dominance, emotional resiliency, and thrill-seeking without anticipatory fear. It is associated with resilience to fear and anxiety, as well as a domineering interpersonal style, and thus captures many of the elements from the PPI's fearless dominance factor (Benning et al., 2005). Patrick and colleagues (2009) noted that boldness is captured "weakly and incompletely" (p. 921) on the PCL–R and is emphasized in Cleckley's (1941/1988) conceptualization of the psychopathy. The authors noted that this distinction likely reflects the different groups (criminal offenders vs. psychiatric patients) that Hare and Cleckley utilized in their study of psychopathy.

Meanness encompasses the callous, aggressive, hostile, and exploitative aspects of psychopathy discussed by McCord and McCord (1964), Hare (1986), and others. Meanness is associated with relational, physical, and destructive types of aggression; lack of empathy; lack of honesty; and excitement seeking (Patrick, 2010). Meanness is emphasized in the affective and interpersonal facets of the PCL–R and coldheartedness on the PPI, but also in callous-unemotional traits on the Antisocial Processes Screening Device (Frick & Hare, 2001) in the youth literature.

Disinhibition reflects deficiencies in behavioral control and poor planfulness or foresight. As such, it captures a general proclivity toward impulsivity, poor regulation of emotions and urges, and difficulty in delaying gratification (Patrick et al., 2009). Patrick and colleagues also described this phenotype as the nexus between impulsivity and negative affect. Contemporary measurement of psychopathy accounts for this domain on the second factor of the PCL–R (social deviance) and the impulsive antisociality factor of the PPI.

To capture the three domains of boldness, meanness, and disinhibition proposed by the triarchic model, Patrick (2010) developed a brief self-report inventory, the Triarchic Psychopathy Measure (TriPM).¹ Both the measure and a brief manuscript that described the TriPM's development and included some initial validity data were made available in the public domain (Patrick, 2010; www.phenxtoolkit.org) rather than releasing the instrument in a peer-review fashion in an academic journal.

The 19-item *Boldness* scale of the TriPM was derived from a larger scale, the Boldness Inventory, developed by Patrick, Vaidyanathan, Benning, Hicks, and Kramer (2010) to expand measurement of the construct captured by the fearless dominance factor of the PPI. The *Boldness* scale includes items from each of the nine subscales in the Boldness Inventory, which captures aspects of boldness such as social efficacy, emotional stability, and venturesomeness. Items making up the 20-item

Disinhibition scale were taken from the Externalizing Spectrum Inventory (ESI; Krueger, Markon, Patrick, Benning, & Kramer, 2007), a 415-item measure designed to assess a variety of behaviors related to disinhibition and externalization across 23 subscales (e.g., substance use, dishonesty, aggression). Factor analyses of the ESI subscales found evidence for a single externalizing factor, and items included on the *Disinhibition* scale came from subscales with the highest loadings on that factor. Items for the 19-item *Meanness* scale were also selected from the ESI, specifically from subscales assessing relational aggression and empathy, suggesting tendencies toward proactive or predatory aggression.

Patrick (2010) presented some initial data on the TriPM in a mixed-gender sample of 94 undergraduate students and a group of 148 male criminal offenders, who were administered the PCL–R in addition to the TriPM. Patrick found that all three scales exhibited a moderate relationship with the total score of the PCL–R. In addition, a number of conference presentations have been offered on the TriPM that have presented evidence for associations between the measure and a wide range of psychopathy measures (e.g., PCL–R, PPI–R, Levenson Self-Report Psychopathy Scale [LSRP]) and psychopathy-relevant criteria (e.g., sensation seeking, narcissism, aggression, discounting, and empathy) consistent with the conceptual underpinnings of these domains (Driscoll, 2011; Driscoll, Patrick, Hall, Poythress, & Lilienfeld, 2012; Phillips, Sellbom, & Ben-Porath, 2011; Sellbom & Phillips, 2012). Sellbom and Phillips (2012) more broadly evaluated the triarchic conceptualization in samples of college undergraduates and female prison inmates. They found *Boldness* was preferentially associated with traits of narcissism, thrill seeking, and low behavioral inhibition system functioning; *Meanness* was associated with Machiavellianism, low empathy, and low behavioral inhibition system; and *Disinhibition* was associated with impulsivity and fun seeking.

The triarchic conceptualization of psychopathy has already had an impact on the field. Although the model has been discussed in several peer-reviewed articles since its 2009 publication (e.g., Blagov et al., 2011; Copestake, Gray, & Snowden, 2011; Poythress et al., 2010; Schoenleber, Sadeh, & Verona, 2011; Sellbom, 2011; Sellbom et al., 2012; Skeem et al., 2011), only one peer-reviewed article has been published that included the TriPM (released in 2010)—the only measure specifically designed to assess this conceptualization of psychopathy—in a broader investigation of the triarchic model (Sellbom & Phillips, 2012). Consequently, this study focuses on examining the construct validity of the TriPM. Construct validity is the degree to which an assessment instrument measures a particular psychological construct (Cronbach & Meehl, 1955). The process of establishing construct validity for any given assessment measure has many components, one of which includes examination of the measure's nomological network, or relation with convergent and divergent constructs. This study was designed to examine the construct validity of the TriPM in relation to both normal-range (i.e., Five-factor model [FFM]) and pathological-range personality traits (e.g., narcissism, deficits in empathy), as well as to a psychopathy-specific measure (i.e., PPI) in a criminal offender sample.

Consistent with the theoretical framework guiding the TriPM's development, we hypothesized in this study that *Boldness* would be associated with PPI fearless dominance, overt and grandiose traits of narcissism, high levels of extraversion,

¹We italicized and capitalized the three domains of boldness, meanness, and disinhibition whenever referring specifically to the scales designed to assess these traits on the TriPM.

and low levels of trait anxiety. *Meanness* was expected to be associated with PPI coldheartedness, low levels of empathic concern for others, exploitativeness, and low levels of conscientiousness and agreeableness. Finally, *Disinhibition* was hypothesized to be associated with PPI impulsive antisociality, low levels of conscientiousness, and traits of vulnerable narcissism (Schoenleber et al., 2011). We also expected that each of the triarchic domains would be significantly associated with the PPI total score, given that each measures a distinct aspect of the global psychopathy construct (Patrick, 2010).

METHOD

Participants

This study included 141 predominantly White (94%), male (66%) inmates incarcerated in two county detention centers in central Kentucky. The mean age of the sample was 29.9 years ($SD = 8.7$) with a mean education of 11.4 years ($SD = 1.9$). Sixty-three percent of the inmates were serving their sentences at the time of testing, and 37% were incarcerated while awaiting adjudication for their charges. The inmates were incarcerated for a variety of charges and convictions that included property offenses (28%), probation and parole violations (24%), drug possession (23%), drug trafficking (18%), and violent offenses (7%), among others.

Measures

Table 1 shows the means, standard deviations, ranges, and internal consistency reliability associated with each scale used in the study.

Triarchic Psychopathy Measure. The TriPM (Patrick, 2010) is a 58-item self-report measure of the triarchic conceptualization of psychopathy. It has three scales that capture distinct constructs of *Boldness* (19 items), *Meanness* (19 items), and *Disinhibition* (20 items). Using a 4-point, Likert-type scale, participants rate the degree to which the items, consisting of personal characteristics, apply to them (*mostly false, false, mostly true, true*). Intercorrelations among the three scales were calculated: *Boldness* and *Disinhibition* were correlated at $-.03$, *Boldness* and *Meanness* were correlated at $.20$, and *Meanness* and *Disinhibition* were correlated at $.36$ in this sample.

Psychopathic Personality Inventory–Short Form. The PPI-SF (Lilienfeld & Hess, 2001) is a 56-item subset of items from the full PPI measure that has been used in numerous studies. In constructing the short form, Lilienfeld and Hess (2001) conducted a factor analysis to determine individual items' loading on each of the eight factors of the PPI, and the highest seven items for each factor were included in the short form. Scores on the PPI-SF have been shown to be highly correlated ($r = .90$) with full version scores (Lilienfeld & Hess, 2001) and its construct validity is generally consistent (albeit with slightly weaker correlations) with the full version of the PPI (Kastner, Sellbom, & Lilienfeld, 2012). We utilized the total score of the PPI-SF in this study, along with the three factors of fearless dominance, impulsive antisociality, and coldheartedness. Test items consist of statements about personal characteristics; participants rate the degree to which the statements apply to them using a 4-point (*mostly false, false, mostly true, true*) Likert-type format.

TABLE 1.—Criteria scale names, number of items, reliability, and brief description.

	Items	α	M	SD	Brief Description
TriPM Boldness	19	.77	50.7	8.5	Fearlessness, interpersonal dominance, low anxiety
TriPM Meanness	19	.88	41.5	11.0	Callousness, aggressiveness, lack of empathy
TriPM Disinhibition	20	.84	53.7	11.3	Impulsivity, lack of planfulness, poor emotional regulation
PPI-SF total score	56	.82	140.0	17.7	Dimensional rating of global psychopathy as captured by the PPI-SF
PPI-SF Fearless Dominance	21	.78	54.7	9.7	Social dominance, manipulativeness, ability to remain calm in stressful situations, and lack of anticipatory fear
PPI-SF Impulsive Antisociality	28	.80	69.9	11.7	Self-centeredness, reckless impulsivity, and proneness to blame others
PPI-SF Coldheartedness	7	.81	15.3	4.9	Callous lack of empathy
NPI total score	40	.88	16.9	7.7	Global rating of narcissism as captured by the NPI
NPI Leadership/Authority	11	.77	5.72	2.94	Social potency, self-perceived leadership ability, dominance
NPI Grandiose Exhibitionism	10	.77	3.62	2.66	Self-absorption, vanity, superiority, exhibitionistic tendencies
NPI Entitlement/Exploitativeness	4	.44	1.21	1.09	Entitled beliefs, sense of deserving respect, willingness to manipulate others
IRI Perspective-Taking	7	.60	14.9	4.9	Seeing things from others' psychological points of view
IRI Empathic Concern	7	.75	17.3	5.8	Feeling empathic and compassionate for others in need
IRI Personal Distress	7	.70	11.4	5.6	Experiencing distress in response to others' distress
IRI Fantasy	7	.66	13.6	5.7	Tendency to imagine oneself in fictional situations
BFI Extroversion	8	.70	3.4	.7	Energy, tendency to seek out stimulation and social interactions
BFI Agreeableness	9	.78	3.5	.8	Tendency to have positive, cooperative social interactions
BFI Neuroticism	8	.78	3.0	.8	Emotional stability
BFI Conscientiousness	9	.69	3.5	.7	Organization, dependability, self-discipline
BFI Openness	10	.74	3.4	.6	Curiosity, originality, willing to engage with new ideas

Note. TriPM = Triarchic Psychopathy Measure; PPI-SF = Psychopathic Personality Inventory–Short Form; NPI = Narcissistic Personality Inventory; IRI = Interpersonal Reactivity Index; BFI = Big Five Inventory.

Narcissistic Personality Inventory. The Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988) was designed to measure the construct of narcissistic personality disorder as conceptualized by the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed. [DSM-III]; APA, 1980). It contains 40 forced-choice items that require endorsement of either a narcissistic or nonnarcissistic statement.

The factor structure of the NPI has been subject to debate since its development. In addition to the total score of the NPI,

this study utilized a recent factor analysis of the instrument by Ackerman et al. (2011). These authors identified three factor scales: Leadership/Authority, Grandiose Exhibitionism, and Entitlement/Exploitativeness, using a 25-item subset of the NPI. A description of the three scales can be found in Table 1.

Interpersonal Reactivity Index. The Interpersonal Reactivity Index (IRI; Davis, 1983) is a 28-item measure of dispositional empathy that has been used in previous psychopathy research (e.g., Alterman, McDermott, Cacciola, & Rutherford, 2003; Zagon & Jackson, 1994). It consists of four separate, seven-item scales that tap particular facets of empathy (empathic concern, personal distress, perspective-taking, and fantasy). The items consist of statements to be rated on a 5-point, Likert-type scale, ranging from 1 (*does not describe me well*) to 5 (*describes me very well*). A description of the four scales can be found in Table 1.

Big Five Inventory. The Big Five Inventory (BFI; John, Donahue, & Kentle, 1991) is a widely used 44-item screening measure of the FFM (John & Srivastava, 1999). These domains include extraversion, neuroticism, openness to experience, agreeableness, and conscientiousness. The items consist of personal statements to be rated on a 5-point, Likert-type scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). A description of the five scales can be found in Table 1.

Procedure

Inmates were tested in groups of up to 8 at a time and were compensated for their time with refreshments. The participants were provided with booklets containing all of the items of the various measures, and responded to test items on an answer sheet marked only with a study ID number. An audio presentation of the materials was also played during the data collection sessions. No identifying information was collected from participants, and data were not used in any fashion for adjudicative or treatment planning purposes.

RESULTS

There were no significant differences between the male ($n = 93$) and female ($n = 48$) participants on the three TriPM scales, t s ranged from .38 to -1.70 , p s $> .09$. Therefore, we used the entire sample for the remainder of the analyses.

We calculated zero-order correlations between the TriPM scale scores and the scores from various criteria, which are presented in Table 2. To examine the unique associations of *Boldness*, *Meanness*, and *Disinhibition* with psychopathy and personality criteria, as well as to determine the amount of variance accounted for by these domains, we also conducted a series of multiple linear regression analyses in which we regressed the various criterion scale scores onto the three TriPM scales. Table 2 also shows the R^2 and standardized beta weights associated with these analyses. To reduce the potential for family-wise error, we utilized a Bonferroni correction in examining the regression results (.05/17 criteria), which resulted in an a priori alpha set at .002.

As expected, the PPI-SF total score was positively associated with all three triarchic domains, which accounted for 58% of the variance in the regression model. Although all three scales exhibited significant unique predictions of the PPI-SF total score, the predictions were substantially stronger for *Boldness*

TABLE 2.—Correlations and standardized beta weights for predicting personality traits with triarchic domains.

Criteria	Boldness		Meanness		Disinhibition		R^2
	r	β	r	β	r	β	
PPI-SF total score	.49*	.40*	.63*	.48*	.37*	.21*	.58
PPI-SF Fearless Dominance	.61*	.58*	.21	.14	-.10	-.13	.39
PPI-SF Impulsive Antisociality	.14	.07	.54*	.37*	.54	.41*	.43
PPI-SF Coldheartedness	.22	.12	.55*	.52*	.20	.01	.32
NPI total score	.54*	.47*	.43*	.36*	.05	-.07	.40
NPI Leadership/Authority	.62*	.57*	.29*	.21*	-.04	-.10	.42
NPI Grandiose Exhibitionism	.35*	.29*	.36*	.31*	.08	-.02	.21
NPI Entitlement/Exploitativeness	.18	.10	.52*	.45*	.30*	.14	.30
IRI Perspective-Taking	-.13	-.03	-.49*	-.47*	-.21	-.04	.25
IRI Empathic Concern	-.14	.01	-.61*	-.70*	.00	.25*	.43
IRI Personal Distress	-.49*	-.50*	-.05	.02	.11	.09	.25
IRI Fantasy	-.10	-.01	-.32*	-.39*	.05	.19	.12
BFI Extroversion	.42*	.46*	-.07	-.16	-.06	.02	.21
BFI Agreeableness	-.26	-.12	-.63*	-.55*	-.35*	-.15	.43
BFI Neuroticism	-.47*	-.44*	-.07	-.11	.32*	.35*	.33
BFI Conscientiousness	.20	.26*	-.44*	-.38*	-.45*	-.31*	.36
BFI Openness	.24	.31*	-.31*	-.36*	-.19	-.05	.20

Note. PPI-SF = Psychopathic Personality Inventory-Short Form; NPI = Narcissistic Personality Inventory; IRI = Interpersonal Reactivity Index; BFI = Big Five Inventory.

*Indicates significance using a Bonferroni-corrected $p < .002$ (.05/17 criteria).

and *Meanness* relative to *Disinhibition*. The remaining PPI-SF scores examined in this study, fearless dominance, impulsive antisociality, and coldheartedness, were associated with the triarchic domains as expected. More specifically, *Boldness* was the only significant predictor of fearless dominance and *Meanness* was the only significant predictor of coldheartedness. *Meanness* and *Disinhibition* were both significant predictors of impulsive antisociality.

Regarding the TriPM scale scores' association with various aspects of narcissism, the NPI total score was significantly correlated with both *Boldness* and *Meanness* in the positive direction. In the regression analyses, the TriPM scales accounted for 40% of the variance of the NPI total score. The NPI Leadership/Authority and the NPI Grandiose Exhibitionism scales were significantly predicted by both the *Boldness* and *Meanness* scales.² The NPI Entitlement/Exploitativeness scale was predicted by *Meanness*. Entitlement/Exploitativeness also had a zero-order association with the *Disinhibition* scale, but was not significantly predicted in the multiple regression analyses.

Next, we examined the TriPM scales in relation to the IRI, a multiscale measure of empathy. *Boldness* was the sole significant predictor of IRI Personal Distress in both the zero-order correlation and multiple regression analyses. *Meanness* was strongly and uniquely associated with IRI Perspective Taking and IRI Fantasy, in the negative direction, in both the zero-order correlations and multiple regression analyses. *Meanness*

²We decided to utilize the Entitlement/Exploitativeness scale of the NPI despite it having a low internal consistency coefficient ($\alpha = .44$) to examine all three of the Ackerman et al. (2011) factor-analyzed scales of the NPI. Ackerman and colleagues reported a similar reliability coefficient for this scale ($\alpha = .46$). Moreover, given the strength of the correlation between Entitlement/Exploitativeness and Meanness ($r = .52$), it is unlikely that unreliability of this criterion was problematic in this study.

was also strongly associated with IRI Empathic Concern, and although *Disinhibition* had virtually no zero-order correlation with IRI Empathic Concern, this scale might have served as a suppressor effect in the multiple regression analysis.

Finally, to determine the relation between TriPM indexes and normal range personality traits from the FFM, we examined the TriPM scales with the BFI. In both the zero-order correlation and multiple regression analyses, *Boldness* was the only significant predictor of Extraversion. The Agreeableness scale was preferentially predicted by *Meanness*. Neuroticism was significantly predicted by both *Boldness* and *Disinhibition*, albeit in opposite directions. Conscientiousness was significantly predicted by all three TriPM scales, although the strength of the prediction was stronger for *Meanness* and *Disinhibition* versus *Boldness*. Finally, Openness was significantly predicted by both *Boldness* and *Meanness*.

In addition to exploring the construct validity of the TriPM, we also examined the extent to which the instrument adds incrementally to existing measures of psychopathy. This is an important early step in establishing the validity of any new measure (see Hunsley & Meyer, 2003, for a review on incremental validity). Using a series of hierarchical linear regressions, we entered the three PPI-SF factors (fearless dominance, impulsive antisociality, and coldheartedness) into the first block and the three TriPM scales into the second block predicting the various personality and empathy criteria in our sample. We examined the changes in R^2 with the addition of the TriPM scales; these results are presented in Table 3. With the exception of NPI Grandiose Exhibitionism, the TriPM scales added incrementally to the prediction of every criterion measure, increasing the amount of explained variance from .06 (NPI Grandiose Exhibitionism) to .26 (IRI Empathic Concern; $ps < .01$). The median incremental change of the TriPM scale scores beyond the PPI-SF scale scores in predicting the various criteria in the current sample was 12% additional variance.

TABLE 3.—Incremental validity of the Triarchic Psychopathy Measure (TriPM) over the Psychopathic Personality Inventory–Short Form (PPI-SF).

Criterion	Block 1: PPI-SF R^2	Block 2: TriPM R^2	R^2 Change	p
NPI Total	.36	.49	.13	<.001
NPI Leadership/ Authority	.27	.43	.17	<.001
NPI Grandiose Exhibitionism	.26	.29	.03	.14
NPI Entitlement/ Exploitativeness	.27	.33	.06	.01
BFI Extraversion	.22	.29	.07	.009
BFI Openness to Experience	.10	.22	.12	<.001
BFI Conscientiousness	.30	.42	.12	<.001
BFI Agreeableness	.27	.45	.18	<.001
BFI Neuroticism	.30	.40	.10	<.001
IRI Perspective Taking	.20	.28	.08	.003
IRI Empathic Concern	.18	.44	.26	<.001
IRI Personal Distress	.12	.30	.17	<.001
IRI Fantasy	.11	.26	.14	<.001

Note. The PPI-SF Fearless Dominance, Impulsive Antisociality, and Coldheartedness scales were entered in the first block of each regression equation, and the TriPM Boldness, Disinhibition, and Meanness scales were entered into the second block of each regression equation. NPI = Narcissistic Personality Inventory; BFI = Big Five Inventory; IRI = Interpersonal Reactivity Index.

DISCUSSION

The three TriPM scales, *Boldness*, *Meanness*, and *Disinhibition*, were found to exhibit both convergent and discriminant validity with other conceptually relevant measures of the constructs underlying each of the three triarchic domains in a criminal offender sample. Given that the TriPM was made available to researchers without undergoing the peer-review process, this study provides particularly important data concerning its validity and reliability.

This study elaborates on the nomological networks of the triarchic model domains by framing them within normal range personality traits and linking them to, among others, impulsivity, narcissism, and pathological deficits in empathy. *Boldness* was found to be significantly associated with extraversion, fearlessness, and stress immunity, as well as low levels of neuroticism and experiencing personal distress in response to others. This latter finding is consistent with research by Alterman et al. (2003), who found that the IRI Personal Distress scale was more strongly related to measures of neuroticism than empathy. Moreover, conceptually relevant interpersonal traits that were associated with boldness included narcissistic exploitativeness, social potency, and feelings of authority and superiority. *Boldness* was the only TriPM scale to be associated with the PPI-SF fearless dominance factor, which is theorized to tap boldness almost exclusively (Patrick et al., 2009; Skeem et al., 2011). These findings are also consistent with Patrick (2010), who found boldness to be associated with the PCL-R interpersonal facet, which indexes boldness to a limited degree.

Meanness was significantly associated with low levels of agreeableness and conscientiousness, which is a common finding in psychopathy research in general using the FFM (Lynam & Derefinko, 2006; Miller et al., 2001). Singh, Arteché, and Holder (2011) also found agreeableness and conscientiousness to be significant predictors of scores derived from the LSRP, which Sellbom and Phillips (2012) found to predominantly reflect meanness, and to a lesser extent, disinhibition. Additionally, meanness was found to be related to low levels of empathic responses to others, as well as to deficiencies in perspective taking, narcissistic feelings of entitlement, and egocentricity. Together with disinhibition, it was related to problematic behavioral tendencies such as impulsivity, negative affect, aggressiveness, and a tendency to blame others. These findings are consistent with those reported by Patrick and colleagues (Patrick et al., 2009; Skeem et al., 2011).

Finally, consistent with the triarchic conceptualization, *Disinhibition* was significantly associated with lower levels of dependability and self-discipline, as well as higher degrees of emotional instability, consistent with the extant psychopathy literature (Lynam, 2002; Lynam & Derefinko, 2006; Widiger & Lynam, 1998). Surprisingly, *Disinhibition* had a significant beta weight in measuring empathic concern on the IRI, despite having a negligible correlation with the variable, suggesting a potential suppressor effect.

The TriPM scales also evidenced discriminant validity. Indeed, examination of the results in Table 2 generally showed nonsignificant beta weights for the TriPM scales that should be unrelated to the criteria. For example, PPI-SF Coldheartedness was strongly associated with *Meanness* (as expected) and had negligible beta weights with *Boldness* and *Disinhibition*. PPI-SF fearless dominance was strongly associated with

Boldness (again, as expected) and was not significantly correlated with *Meanness* and *Disinhibition*.

In this study, the amount of PPI–SF variance explained by the TriPM scales is lower than one might expect, given the similarities of the underlying constructs. This could be attributed in part to a measurement issue. This study used the PPI–SF (which was necessary due to practical time constraints associated with the data collection), whereas the full-length PPI might have been a better choice. For instance, Kastner et al. (2012) found that PPI–SF scale scores had attenuated convergent validity relative to full-length counterparts in predicting scores on other psychopathy measures in correctional samples. In addition, Sellbom and Phillips (2012) found that the TriPM domains did indeed explain more variance in such scores (albeit with a larger range, 19%–75%; median = 62%) when examining correlations between TriPM scale scores and full-length PPI scores.

Examining incremental validity is an important step in the development of new measures. Such analyses identify the benefit of using a new measure by examining the extent to which it provides additional information over existing measures. Our results suggest that the TriPM can offer incremental information over existing psychopathy measures (the PPI–SF in this sample). The TriPM added the most incremental variance over the PPI–SF for capturing traits of social potency and dominance, one's response to distress in others, feelings of empathy, and agreeableness (ΔR^2 ranged from 17–26%). The former two criteria showed their strongest associations (as measured by zero-order correlation coefficient) with *Boldness*, whereas the latter two showed their strongest association with *Meanness*. This suggests that the TriPM *Boldness* and *Meanness* scales might be capturing something distinct above and beyond the PPI–SF.

Sellbom and Phillips (2012) found that the triarchic domain of meanness is captured by both the impulsive antisociality and coldheartedness factors of the PPI. Patrick (2010) noted that PPI impulsive antisociality primarily taps disinhibition, although it also captures to some degree the callous-aggressive qualities of meanness. The TriPM thus provides a cleaner distinction between the constructs of meanness and disinhibition with respect to measurement.

Limitations and Future Directions

There are several limitations to this study that need to be acknowledged. First, the study participants were homogenous in terms of ethnicity (i.e., 94% White), and the samples were derived from a restricted geographic region with traditionally limited mobility. In addition, the majority of the criminal charges of the participants were related to drugs and alcohol, property charges, or parole violations, with relatively few violent offenses, which suggests that this sample was not severe in terms of criminal offending. Future studies should include samples with greater ethnic and geographic diversity, including nonoffenders as well as those with a broader range of criminal offenses.

Second, the authors of the triarchic model suggested that psychopathy might be a compound trait; thus, one might not appear psychopathic without the presence of multiple factors (e.g., mean and disinhibited). This view suggests that interactions among the TriPM scales might be important to test. Unfortunately, given our sample size, we do not have sufficient statistical power to conduct these analyses. Future research should

examine interactions among the TriPM scales. In a similar vein, future research on the triarchic conceptualization (as indexed by the TriPM) might be useful for elaborating subtypes of psychopathic and antisocial personality (e.g., predominantly bold vs. mean psychopathy).

Finally, for pragmatic reasons, this study only used self-report measures. Strict reliance on self-report measures can artificially inflate associations between measures via mono-method variance. Thus, although the effect size magnitudes are likely inflated, the overall pattern of results between the scales is nonetheless consistent with conceptual expectations and previously reported data (i.e., Drislane, 2011; Patrick, 2010; Sellbom & Phillips, 2012). Moreover, use of self-report methods is commonplace in psychological assessment research, and the findings reported here are important given the dearth of information about the TriPM. Another potential concern regarding the use of self-report methods in this population is that participants' responses could be inaccurate, due to either a lack of willingness or an inability (due to poor insight) on the part of psychopathic individuals to describe themselves accurately. However, recent research by Miller, Jones, and Lynam (2011) demonstrated that psychopathic individuals are capable of accurately reporting their personality traits when there are no direct consequences for accurate reporting. This study was consistent in this regard, as data were collected anonymously and participants were instructed that their answers could neither be traced to them nor used in any fashion for adjudicative purposes.

Conclusion

The TriPM was designed to index the domains of boldness, meanness, and disinhibition that Patrick et al. (2009) described as the component phenotypic expressions of psychopathy. The associations between the triarchic domains and conceptually relevant correlates support the use of the model as a way to organize a discussion of differing conceptualizations and measures of psychopathy.

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