

## **PSYCHOPATHY AND INTERNALIZING PSYCHOPATHOLOGY: A TRIARCHIC MODEL PERSPECTIVE**

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Methodological and conceptual differences across studies have impeded our understanding of the relationship between psychopathy and internalizing psychopathology. To shed further light on this question, we undertook correlational and structural-modeling analyses of data from two samples to characterize how facets of psychopathy relate to internalizing psychopathology when assessed using multidimensional measures of each construct (i.e., Triarchic Psychopathy Measure, Inventory of Depression and Anxiety Symptoms). Participants for Study 1 were 470 undergraduates and community-dwelling adults who completed these measures in self-report form; participants for Study 2 were 301 community-dwelling adults who completed informant-rating versions of these measures (as applied to a known-other). Across samples, analyses revealed sharply contrasting associations for the three triarchic-model facets with internalizing psychopathology and its subdomains, with boldness relating negatively in most cases, disinhibition relating positively in most cases, and meanness exhibiting mostly null associations. Results provide a nuanced picture of associations between psychopathic symptomatology and internalizing problems.

Psychopathic personality (psychopathy), a condition characterized by distinct affective and interpersonal features accompanied by persistent behavioral deviancy, is one of the most widely studied forms of personality pathology. Nonetheless, the nature and boundaries of this multidimensional construct continue to be actively debated (e.g., Lewis, 1974; Lilienfeld, 1994; Lilienfeld, Watts, Smith, Berg, & Latzman, 2015; Patrick & Drislane, 2015). Two predominant conceptualizations of psychopathy provide diverging views of the core of the psychopathy construct. Whereas classical accounts of psychopathy highlighted affective and interpersonal features as most central to this clinical condition (e.g., Cleckley, 1941; Karpman, 1941; Lykken, 1957, 1995), some modern conceptualizations assign greater weight to antisocial-externalizing behavior in defining it (e.g., American Psychiatric Association,

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2013; Miller & Lynam, 2012). Differing conceptualizations of psychopathy have yielded different operationalizations, often contributing to diverging findings when examining associations between psychopathy and external correlates. Nevertheless, one point of consistency across theoretical conceptualizations is that virtually all include deficient affect.

This consensus notwithstanding, the issue of how psychopathy relates to “neurotic” or internalizing symptomatology remains a matter of debate (Hare, 2003; Hicks & Patrick, 2006; Schmitt & Newman, 1999). We undertook the present research to shed further light on this issue by examining relations between distinct facets of psychopathy specified by the triarchic model and internalizing symptomatology across two samples using well-established multidimensional measures of these two clinical domains.

### **PSYCHOPATHY AND INTERNALIZING PSYCHOPATHOLOGY**

Factor analyses often reveal two broad, higher-order dimensions of general psychopathology (Kendler, Prescott, Myers, & Neale, 2003; Krueger, 1999; Slade & Watson, 2006; Vollebergh, Iedema, Bijl, de Graaf, Smit, & Ormel, 2001; Watson, 2005): *externalizing* (e.g., antisocial/conduct problems and substance use disorders) and *internalizing* (e.g., mood and anxiety disorders). Despite the consistent emphasis on deficient affect in the theoretical and measurement literatures, studies of psychopathy have focused more heavily on externalizing-related correlates, including violent crime, other antisocial behavior, and substance abuse (Benning, Patrick, Hicks, Blonigen, & Krueger, 2003; Patrick, Poythress, Edens, Lilienfeld, & Benning, 2006), than on internalizing-related correlates. Nonetheless, a growing body of research has also examined psychopathy’s associations with differing types of internalizing psychopathology (e.g., Blonigen et al., 2010), including anxiety (Benning, Patrick, Blonigen, Hicks, & Iacono, 2005; Derefinko, 2015; Frick, Lilienfeld, Ellis, Loney, & Silverthorn, 1999; Lilienfeld & Widows, 2005; Patrick et al., 2006; Salekin, Leistico, Trobst, Schrum, & Lochman, 2005), post-traumatic stress (Sellbom, 2015), depression (Benning et al., 2005; Hicks & Patrick, 2006; Vitale, Smith, Brinkley, & Newman, 2002; Willemssen, Vanheule, & Verhaeghe, 2011), suicide (Verona, Hicks, & Patrick, 2005; Verona, Patrick, & Joiner, 2001), and self-harm (Douglas et al., 2008; Swogger, Conner, Meldrum, & Caine, 2009). Clarifying how psychopathy relates to internalizing psychopathology is essential to understanding its dispositional basis and etiologic origins. Nonetheless, researchers addressing this question have operationalized internalizing problems in differing ways, rendering comparisons across studies difficult. Arguably, more generalizable and consistent conclusions can be drawn from research examining broader dimensions that underlie specific symptom clusters within the internalizing domain.

Methodological and conceptual differences across studies have also often yielded inconsistent findings, impeding our understanding of associations between psychopathy and internalizing psychopathology. Studies using operationalizations of psychopathy that assign greater weight to interpersonal

and affective features have typically found expected negative correlations between psychopathy and internalizing variables (e.g., Benning et al., 2005), whereas studies using measures that assign greater weight to antisocial-externalizing behavior have typically yielded negligible (e.g., Schmitt & Newman, 1999) or in some cases positive associations (American Psychiatric Association, 2013). Nonetheless, even studies using measures based on similar conceptualizations of psychopathy have sometimes yielded inconsistent associations (e.g., Miller & Lynam, 2012, for discrepancies in associations of subdimensions of the Psychopathic Personality Inventory with measures of internalizing problems).

A likely methodological contributor to these inconsistencies is the frequent reliance on global (total) psychopathy scores in the literature, given the now well-known finding that subdimensions of psychopathy show contrasting (in some cases opposing) associations with external criterion measures. Considering psychopathy as a monolithic construct, operationalized in terms of total scores on psychopathy inventories, obscures more nuanced associations between subdimensions of psychopathy and internalizing psychopathology (Lilienfeld, 1994). Moreover, shared variance among psychopathy subdimensions can obscure (suppress) their associations with criterion measures when not accounted for statistically (Hicks & Patrick, 2006). Indeed, Frick and colleagues (1999) found that observed associations of dimensions of psychopathy with measures of anxiety and fearfulness became more pronounced and specific after controlling for variance shared by the psychopathy dimensions.

An analytic strategy for addressing the correlated nature of psychopathy subdimensions is latent variable modeling, or structural equation modeling (SEM). This approach provides a means to control for shared variance among psychopathy subdimensions, allowing for evaluation of how unique elements of each relate to internalizing psychopathology. Moreover, structural modeling allows measurement error to be parsed from trait variance, yielding a more accurate picture of the associations among constructs. To date, only one published study has examined relations between subdimensions of psychopathy and internalizing psychopathology using structural modeling. Hicks and Patrick (2006), working with data from an incarcerated male offender sample, used SEM to model the two factors of the Psychopathy Checklist–Revised (PCL-R; Hare, 1991, 2003)—affective-interpersonal symptoms (Factor 1) and impulsive-antisocial symptoms (Factor 2)—and examine their associations with three facets of internalizing psychopathology: fearfulness, emotional distress, and anger-hostility. Controlling for their overlap, Factor 1 was significantly and negatively associated with fearfulness and emotional distress, whereas Factor 2 was significantly positively associated with all three negative emotionality dimensions.

A further challenge in efforts to understand relations between psychopathy and internalizing problems is that psychopathy subdimensions are represented in varying ways in different measures (Driscoll, Patrick, & Arsal, 2014; Lilienfeld et al., 2016). These divergences pose interpretive problems for integrating findings across studies. For example, the interview-based PCL-R, while providing an essential referent for understanding relations

between psychopathy and affective psychopathology, relies extensively on antisocial acts and attitudes pertaining to such acts. Moreover, its two factors share a substantial component of deviancy and maladjustment (Patrick, Hicks, Nichol, & Krueger, 2007; Skeem & Cooke, 2010; Widiger, 2006). In contrast, the self-report Psychopathic Personality Inventory–Revised (Lilienfeld & Widows, 2005; see also Lilienfeld & Andrews, 1996) assesses psychopathic tendencies without explicit reference to antisocial behavior, and its two broad factors are largely uncorrelated with one another (Benning et al., 2003), and only moderately associated with the PCL-R’s two factors (Benning et al., 2005; Miller & Lynam, 2012; Poythress et al., 2010). Given differences between subdimensions of psychopathy as assessed by these and other inventories, it would be helpful to have a common point of reference for relating findings from studies using different psychopathy inventories.

### **TRIARCHIC MODEL OF PSYCHOPATHY**

In the service of reconciling alternative historic conceptualizations of psychopathy and of integrating findings across studies using different assessment measures, Patrick, Fowles, and Krueger (2009; see also Patrick & Drislane, 2015) developed the influential triarchic model of psychopathy. In this model, psychopathy is characterized in terms of three dispositional dimensions: *boldness*, the tendency to remain calm under pressure, with an aptitude for success in social situations in conjunction with physical risk-taking; *disinhibition*, the propensity towards impulsivity and a general lack of restraint; and *meanness*, encompassing a callous interpersonal style with tendencies toward excitement seeking and the cruel manipulation of others.

The triarchic model proposes that these three constructs are represented to varying degrees in most psychopathy conceptualizations and measures, an assertion that has received extensive support (Patrick & Drislane, 2015). As a consequence, the constructs of the triarchic model can serve as referents for comparing findings from studies using different psychopathy inventories. In addition, the triarchic constructs are explicitly biobehavioral in nature and are posited to reflect differing biological foundations that bear implications for mental health problems in general. Consistent with this position, measures of the triarchic constructs show distinct relations with neurophysiological measures (e.g., amygdala activation [Marsh et al., 2008], aversive startle potentiation [Vaidyanathan, Patrick, & Bernat, 2009]; and P300 brain response [Yancey, Venables, Hicks, & Patrick, 2013]). As such, the triarchic constructs can be useful for connecting findings regarding the correlates of psychopathy subdimensions to neural-systems concepts and data, and for interfacing studies of psychopathy with research on other forms of psychopathology.

The Triarchic Psychopathy Measure (TriPM; Patrick, 2010) was developed to assess the triarchic model dimensions. Consistent with tenets of the model, the TriPM’s Boldness, Meanness, and Disinhibition subscales show distinctive relations with both externalizing-related (e.g., impulsivity, sensation seeking, aggression) and internalizing-related (e.g., neuroticism, negative

emotionality, anhedonia, depressivity; Drislane et al., 2014; Sellbom & Phillips, 2013; Strickland, Drislane, Lucy, Krueger, & Patrick, 2013) traits. For internalizing-related traits, Boldness exhibits mostly negative associations, Disinhibition exhibits mostly positive associations, and Meanness exhibits mixed relations (i.e., null associations with some measures in some studies, weak positive or negative correlations with others; Drislane et al., 2014; Poy, Segarra, Esteller, López, & Moltó, 2014; Sellbom & Phillips, 2013; see also: Nelson, Strickland, Krueger, Arbisi, & Patrick, 2016; Patrick, Venables, et al., 2013; Venables & Patrick, 2012).

Nonetheless, although there appears to be strong support for the notion that triarchic psychopathy dimensions are associated with internalizing-related traits, research has yet to examine associations between the triarchic model dimensions and the internalizing factor of psychopathology within a joint structural model. With this gap in mind, the current work examined associations of the triarchic dimensions with a general factor reflecting proneness to internalizing problems.

## THE CURRENT STUDIES

Across two participant datasets, one self-report (Study 1) and the other informant-report (Study 2), we examined for the first time relations between the triarchic dimensions of psychopathy and internalizing psychopathology at both manifest-scale and latent-variable levels. The triarchic dimensions were operationalized using the subscales of the TriPM; internalizing psychopathology was operationalized using the Inventory of Depression and Anxiety Symptoms (IDAS; Watson et al., 2007), a widely used measure of the internalizing domain. A further innovative feature is that we used data from two forms of these inventories, a self-report version (Study 1) and an informant-rating version (Study 2). As such, the current work has the potential not only to advance our understanding of the associations between psychopathy and internalizing psychopathology, but to provide new information regarding the usefulness of the TriPM and IDAS in an informant-report format. The latter aspect of this work is important given evidence that informant-rating data can serve as a valuable complement to self-report or interview-based data in evaluating the relationship between psychopathic tendencies and internalizing problems (e.g., see Fiedler, Oltmanns, & Turkheimer, 2004, for data on the incremental validity of informant reports beyond self-reports in predicting real-world outcomes among individuals with personality pathology).

Building on previous empirical and theoretical work (e.g., Hicks & Patrick, 2006; Patrick, 2010; Patrick et al., 2009; Patrick, Kramer, Krueger, & Markon, 2013), we hypothesized that the triarchic psychopathy dimensions would evidence differential associations with internalizing psychopathology. Specifically, our major predictions were as follows:

1. Boldness would show negative associations with various forms of anxious-depressive symptomatology and scores on the general internalizing factor. This prediction was based on the conception of dispositional fear-

lessness as the etiologic substrate for boldness (Patrick et al., 2009) and the fact that measures of boldness include a distinct component of emotional resilience (Lilienfeld & Widows, 2005; Patrick, 2010).

2. Disinhibition would show positive associations with internalizing problems of various types and general internalizing factor scores. This prediction was based on disinhibition's presumed basis in neuro-regulatory dysfunction (Patrick et al., 2009) and findings of positive relations for measures of disinhibition with measures of negative affective traits (Drislane et al., 2014; Sellbom & Phillips, 2013).
3. For meanness as indexed by the TriPM, analyses were exploratory in nature, given mixed associations for scores on this dimension with negative emotionality measures in prior work (Drislane et al., 2014; Poy et al., 2014; Sellbom & Phillips, 2013).

## STUDY 1: METHOD

### PARTICIPANTS

The sample for Study 1 was 470 adults (18–57 years old;  $M_{age} = 20.77 \pm 4.35$ ; 49% female) comprising undergraduates from a large southern public U.S. university along with adults from the surrounding community, recruited through campus advertisements and Craigslist advertisements. Data were collected either electronically or via paper-and-pencil forms. All study procedures were approved by the University's institutional review board.<sup>1</sup>

### MEASURES

*Triarchic Psychopathy Measure (TriPM)*. Triarchic psychopathy dimensions (i.e., Boldness, Meanness, and Disinhibition) were assessed using the TriPM (Patrick, 2010). The TriPM dimensions have demonstrated good internal consistencies (Cronbach's alphas) across forensic and undergraduate samples, ranging from .82 to .90 (Sellbom & Phillips, 2013). Moreover, the TriPM shows good convergent validity with other widely used self- and informant-report psychopathy measures, including the Psychopathic Personality Inventory–Revised (PPI-R; Lilienfeld & Andrews, 1996; Lilienfeld & Widows, 2005) and the Psychopathy Checklist–Revised (PCL-R; Hare, 1991, 2003; Patrick, 2010). Internal consistencies (Cronbach's alphas) in the current sample were .88 for Boldness, .87 for Meanness, and .86 for Disinhibition.

*Inventory of Depression and Anxiety Symptoms (IDAS)*. Internalizing psychopathology was assessed with the IDAS (Watson et al., 2007). Consistent with common clinical approaches to assessing these conditions, the IDAS assesses current levels of symptomatology over the past two weeks. The IDAS

1. To determine the effects of careless or inattentive responding, we computed scores on the Triarchic Assessment Procedure for Inconsistent Responding (TAPIR) scale (Mowle et al., 2015). After removing questionable protocols based on this scale, we reran bivariate correlations between TriPM scales and IDAS scales. Results remained virtually identical (range of differences in  $r_s = 1.001$  to  $1.006$ ).

yields 8 factor analytically derived scales assessing internalizing symptom dimensions (General Depression, Dysphoria, Well-Being, Panic, Lassitude, Insomnia, Suicidality, Social Anxiety, Ill Temper, Traumatic Intrusions, Appetite Loss, and Appetite Gain). The IDAS exhibits good internal consistency, with Cronbach's alphas across psychiatric, community, and student samples ranging from .67 to .92 (Watson et al., 2007). Moreover, IDAS scales have yielded strong convergent validity with widely used anxiety and depression measures including the Beck Depression Inventory-II (Beck, Steer, & Brown, 1996), Beck Anxiety Inventory (Beck & Steer, 1990), and corresponding scales on the Interview for Mood and Anxiety Symptoms (Kotov, Gamez, & Watson, 2005; Watson et al., 2007). Internal consistencies (Cronbach's alphas) in the current sample ranged from .75 (Suicidality) to .91 (Appetite Loss).

## ANALYSES

First, bivariate (zero-order) correlations were computed between self-report TriPM and self-report IDAS scales. To control for shared variance among psychopathy dimensions, partial correlations were also computed (see Table 1). Then, consistent with a recent structural-modeling analysis of the TriPM by Somma, Borroni, Drislane, Patrick, and Fossati (in press) an omnibus exploratory structural equation model (ESEM) of the TriPM items was used to specify triarchic psychopathy dimensions using a robust weighted least square (WLSMV) model in which three general factors were extracted and items were rotated to their respective factor. Further, consistent with Somma and colleagues, correlations among error terms were included to account for co-dependencies among items. A latent internalizing factor was modeled by a one-factor confirmatory factor model using IDAS scales, with the exception of the general depression scale, which is composed of items overlapping with the other scales, and the two appetite scales, which did not coalesce with the rest of the IDAS scales. For each of these models, goodness-of-fit indices—consisting of chi-square test of model fit ( $X^2$ ), root mean square error of approximation (RMSEA), comparative fit index (CFI), and Tucker-Lewis index (TLI)—were examined to ensure adequate fit before fitting a single ESEM model in which a latent internalizing psychopathology factor was regressed onto latent dimensions of triarchic psychopathy.

Finally, given the growing interest in examining interactive effects of Boldness with the other two triarchic dimensions (e.g., Sellbom, 2015; Venables et al., 2015), we used a series of post-hoc, exploratory analyses to test for interactive effects in relation to internalizing psychopathology. Specifically, we fit models in which we regressed the CFA-based internalizing factor onto product terms for regression-estimated triarchic factor scores (i.e., boldness  $\times$  meanness and boldness  $\times$  disinhibition).<sup>2</sup>

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2. We were unable to fit these models within an ESEM framework as Mplus does not allow for latent interaction terms within ESEM.

TABLE 1. Correlations Between TriPM Facet Scales and IDAS Symptom Scales: Study 1

	Boldness		Disinhibition		Meanness	
	Bivariate	Partial	Bivariate	Partial	Bivariate	Partial
Dysphoria	<b>-.34</b>	-.35	<b>.41<sup>a,b</sup></b>	<b>.40<sup>a,b</sup></b>	.12	-.01
Lassitude	-.19	-.21	<b>.29<sup>a</sup></b>	<b>.23<sup>a</sup></b>	.16	.09
Insomnia	-.07	-.08	<b>.25<sup>a</sup></b>	<b>.20<sup>a</sup></b>	.15	.05
Suicidality	-.20	-.23 <sup>a</sup>	<b>.22<sup>a</sup></b>	.13	.18	.15
Appetite Loss	-.11	-.11	<b>.24<sup>a</sup></b>	<b>.20<sup>a</sup></b>	.13	.05
Appetite Gain	-.13	-.15 <sup>a</sup>	.11	.03	<b>.16<sup>a</sup></b>	<b>.15<sup>a</sup></b>
Well-Being	<b>.38<sup>a</sup></b>	<b>.40<sup>a</sup></b>	-.26	-.23	-.10	-.07
Ill Temper	-.10	-.13	<b>.39<sup>a</sup></b>	<b>.29<sup>a</sup></b>	<b>.33<sup>b</sup></b>	<b>.21<sup>b</sup></b>
Social Anxiety	<b>-.44<sup>a,b</sup></b>	<b>-.44<sup>ab</sup></b>	.25	.22	.09	.07
Panic	-.16	-.17	<b>.34<sup>a</sup></b>	<b>.28<sup>a</sup></b>	.19	.08
Traumatic Intrusions	-.18	-.18	<b>.29<sup>a</sup></b>	<b>.25<sup>a</sup></b>	.12	.03
General Depression	-.33	-.35	<b>.40<sup>a</sup></b>	<b>.36<sup>a</sup></b>	.15	.04

Note. TriPM = Triarchic Psychopathy Measure; IDAS = Inventory of Depression and Anxiety.  $N = 470$  for bivariate (zero-order) associations and 456 for partial correlations due to pairwise versus listwise deletion, respectively, of cases with missing data; partial correlations statistically control for shared variance among triarchic dimensions. <sup>a</sup>Highest correlation in a row (denoted separately for bivariate and partial correlations); <sup>b</sup>Highest correlation in a column (denoted separately for bivariate and partial correlations). Bolded correlations are significant at  $p < .001$ .

## STUDY 1: RESULTS AND DISCUSSION

### BIVARIATE CORRELATIONS

Associations between triarchic psychopathy dimensions and affective psychopathology were first examined using bivariate and partial correlations to ascertain relations between the TriPM facet and IDAS symptom scales (see Table 1; correlations within IDAS scales are included in Supplemental Table 1). Among the self-report TriPM scales, Meanness was positively correlated with both Boldness and Disinhibition ( $r_s = .23$  and  $.45$  respectively, all  $p_s < .01$ ), whereas Boldness and Disinhibition showed no association ( $r = -.00$ ). At the bivariate (zero-order) level, TriPM Boldness was most strongly associated with low scores on IDAS Social Anxiety, followed by high scores on Well-Being and low scores on Dysphoria ( $r_s = -.44$ ,  $.38$ , and  $-.34$ , respectively, all  $p_s < .001$ ). Disinhibition showed its strongest bivariate associations with IDAS Dysphoria followed by General Depression and Ill Temper ( $r_s = .41$ ,  $.40$ ,  $.39$ , respectively, all  $p_s < .001$ ). By contrast, Meanness was most strongly associated with IDAS Ill Temper ( $r = .33$ ,  $p < .001$ ), showing only modest significant associations with some IDAS scales apart from this ( $r_s$  ranged from  $.15$  [Insomnia] to  $.19$  [Panic],  $p_s < .001$ ) and negligible associations with the others ( $r_s < |.13|$ ).

Accounting statistically for shared variance across the three triarchic dimensions, partial correlations with IDAS scales were generally attenuated slightly in magnitude compared with zero-order correlations, with the exception of Boldness, which evidenced slightly larger associations with IDAS scales (i.e., a suppressor effect). Further, whereas partial correlations were generally consistent with zero-order correlations, associations between

TriPM Meanness and IDAS scales approached zero, with the exception of Ill Temper, Suicidality, and (surprisingly) Appetite Gain.

## STRUCTURAL MODEL

As described earlier, we jointly analyzed all 58 items of the TriPM in a three-factor WLSMV ESEM model analogous to that reported by Somma and colleagues (in press). Consistent with Somma and colleagues, this three-factor model evidenced an acceptable fit to the data,  $\chi^2(1333) = 2393.797, p < .001$ , RMSEA = .040, 90% CI for RMSEA [.037, .043], TLI = .892, CFI = .913, with items assigned a priori to each triarchic dimension largely loading on factors corresponding to Boldness, Meanness, and Disinhibition (see Table 2). Of note, some items assigned to the meanness factor showed cross-loadings on the other factors of the model. Specifically: Items 6 and 45 assigned to Meanness (“I would enjoy being in a high speed chase”; “Things are more fun if a little danger is involved”) loaded to similar degrees on Boldness; items 17, 26, and 42 assigned to Meanness (“I return insults”; “I taunt people just to stir things up”; “I sometimes insult people on purpose to get a reaction from them”) loaded to similar degrees on Disinhibition; and item 14 of Meanness (“I enjoy a good fight”) loaded secondarily on both Boldness and Disinhibition.

A full ESEM model was then specified to estimate the associations between the three psychopathy dimensions and internalizing psychopathology by regressing a latent internalizing psychopathology factor, estimated from IDAS scale scores as described earlier, on latent dimensions of psychopathy delineated by the ESEM measurement model of the triarchic dimensions (see Figure 1). The resulting model showed a generally acceptable fit to the data:  $\chi^2(1879) = 3239.265, p < .001$ ; RMSEA = .039 (CI for RMSEA [.037, .042]); TLI = 0.868; CFI = 0.888.

Regarding relations among the latent triarchic factors in the ESEM model, meanness and disinhibition were moderately correlated ( $r = .34, p < .001$ ), whereas boldness showed relatively weak positive associations with meanness and disinhibition ( $r_s = .16$  and  $.13$ , respectively,  $p_s = < .001$  and  $< .01$ ). With regard to associations with internalizing, boldness showed a strong negative association with the general factor of the IDAS model ( $\beta = -.40, SE = .04, p < .001$ ), whereas disinhibition evidenced a strong positive association with the IDAS general factor ( $\beta = .52, SE = .05, p < .001$ ). Meanness was not significantly associated with the IDAS general factor ( $\beta = .07, SE = .05, p > .10$ ).

Finally, CFA-based internalizing was regressed on regression-estimated triarchic factor scores and their product terms (i.e., boldness  $\times$  meanness and boldness  $\times$  disinhibition). Whereas the boldness  $\times$  meanness interaction showed no predictive association with latent internalizing ( $\beta = .01, SE = .04, p > .80$ ), the relationship for the boldness  $\times$  disinhibition term approached significance ( $\beta = -.09, SE = .05, p = .056$ ). Further probing of this interaction-term effect (see Supplemental Figure 1) revealed that the positive association between disinhibition and internalizing was stronger among individuals rated as lower on boldness than among those rated as higher on boldness.

TABLE 2. Weighted Least Square Exploratory Structural Equation Models of Triarchic Psychopathy Measure Items for Boldness, Meanness, and Disinhibition Scales, Respectively: Exploratory Structural Equation Models—Self-Report Sample (N = 470)

TriPM Boldness Item	B	M	D	TriPM Meanness Item	M	B	D	TriPM Disinhibition Item	D	M	B
1. I'm optimistic more...	.52	-.19	-.18	2. How other people...	-.70	.01	.14	3. I often act on...	.46	.02	.06
4. I have no strong...	-.32	.04	-.06	6. I would enjoy being...	.14	.30	.26	5. I've often missed...	.54	.03	-.21
7. I am well equipped to...	.46	.14	-.23	8. I don't mind if...	.51	.00	.32	9. My impulsive...	.70	.00	.00
10. I get scared easily.	-.49	-.25	.18	11. I sympathize with...	-.83	.10	.25	12. I have missed work...	.54	.04	.01
13. I'm a born leader.	.71	-.06	.05	14. I enjoy a good...	.41	.35	.25	15. I jump into things...	.48	.17	.08
16. I have a hard time...	-.61	.07	.16	17. I return insults.	.27	.10	.38	18. I've gotten in trouble...	.67	-.14	.04
19. I have a knack for...	.84	-.20	.14	20. It doesn't bother me...	.85	.07	.03	21. I have good control...	-.48	-.10	.24
22. I function well in...	.69	-.10	-.04	23. I enjoy pushing...	.33	.21	.33	24. I have taken money ...	.55	.11	-.06
25. I don't think of...	-.48	-.05	.20	26. I taunt people just...	.37	.14	.43	27. People often abuse...	.45	-.03	-.07
28. I'm afraid of far...	.50	.14	.03	29. I don't see any point...	.70	.02	.16	30. I keep appointment...	-.47	-.02	.19
32. I can get over things...	.43	.21	-.05	33. I am sensitive to...	-.79	.03	.23	31. I often get bored...	.41	.09	-.13
35. It worries me to go...	-.52	-.15	.16	36. I don't have much...	.89	-.04	-.15	34. I have conned...	.71	.11	.24
38. I can convince...	.72	-.10	.19	39. For me honesty...	-.36	.24	-.25	37. I get in trouble for...	.64	.08	.00
41. I don't like to take...	-.62	.10	.02	40 I've injured people...	.54	.19	.31	43. I have taken items...	.60	.07	.00
44. It's easy to...	-.58	-.16	.16	42. I sometimes insult...	.34	.08	.33	46. I have a hard time...	.43	-.03	-.12
47. I stay away from...	-.42	-.22	-.15	45. Things are more fun...	.15	.38	.37	49. I have lost a friend...	.70	.01	-.13
50. I don't stack up...	-.63	.09	.17	48. I don't care much if...	.77	-.01	.15	51. Others have told me...	.60	.12	.05
54. I never worry about...	.45	.14	-.12	52. It's easy for me to...	-.65	.18	.22	53. I have robbed...	.76	.13	-.04
57. I'm not very good...	-.82	.20	-.02	55. It doesn't bother me...	.85	-.02	-.05	56. I have had problems...	.71	-.06	-.10
				58. I have stolen...					.58	.17	.04

Note. TriPM: Triarchic Psychopathy Measure; TriPM items are numbered in the order in which they appear in the questionnaire; B: Boldness factor; M: Meanness factor; D: Disinhibition factor. Factor loadings  $\geq .30$  shown in bold.

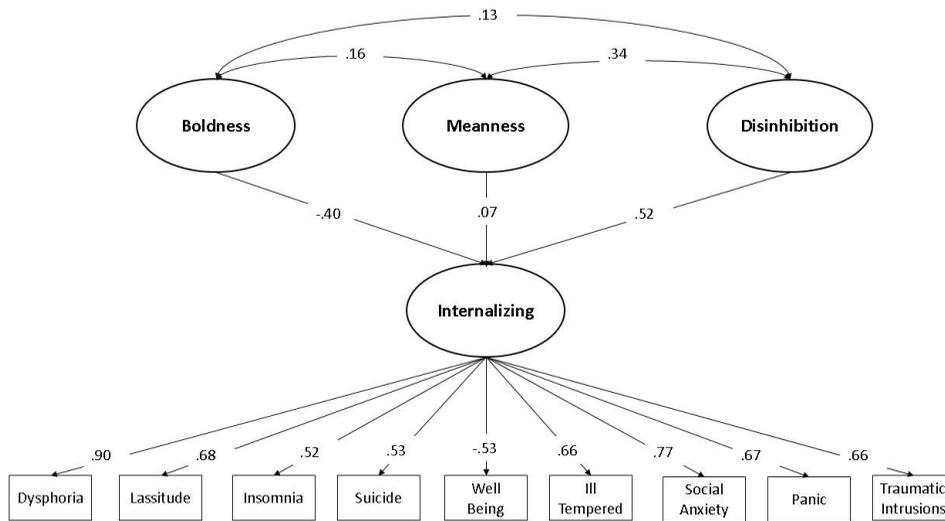


FIGURE 1. Exploratory structural equation model of the dimensions of self-reported triarchic psychopathy and internalizing psychopathology.  $N = 470$ .  $\chi^2 = 3239.27$  (1879),  $p < .001$ ; RMSEA = .039 (CI [.037, .042]); CFI = 0.89, TLI = 0.87.

These results indicate markedly contrasting associations for triarchic psychopathy facets with internalizing psychopathology. As noted earlier, though, the question of how psychopathy subdimensions covary with anxious-depressive problems has not been addressed previously with informant rating data. To this end, Study 2 was undertaken to examine the extent to which findings based on self-ratings of participants extend to ratings of others provided by informants.

## STUDY 2: METHOD

### PARTICIPANTS

The individuals who served as informants in this second study were 301 adults recruited for a previous study (Latzman et al., 2016) through Amazon's Mechanical Turk (MTurk; www.Mturk.com), an open online marketplace that facilitates access to participants for web-based data collection. Geographic location of participants was constrained to the United States. Although some researchers have raised concerns regarding the quality of MTurk data (e.g., potential social desirability response sets, practice effects; see Paolacci & Chandler, 2014), research suggests that studies conducted using MTurk yield data of comparable reliability and construct validity to those of traditional data collection efforts (Buhrmester, Kwang, & Gosling, 2011; Goodman, Cryder, & Cheema, 2013). Participants were asked to "report on an individual they know well" (e.g., spouse/partner, friend, family member) and were compensated monetarily. Most informants were female (63.7%) and White (80.6%). Individuals on whom informants reported ( $M_{age}$

= 36.99 ± 14.42) were about evenly split between males and females (52.5% males, 47.5% females), with 40.7% the informant's spouse/partner, 35.9% a friend, and 21.6% a family member, and 1.7% reporting Other. All study procedures were approved by the university's institutional review board.<sup>3</sup>

## MEASURES

Consistent with Study 1, triarchic psychopathy and internalizing psychopathology were assessed using the TriPM and IDAS, respectively—in this case, informant-report versions of each, created for purposes of this research. As described in Latzman and colleagues (2016), TriPM items were revised so that informants assessed the extent to which each statement described someone they knew well; IDAS items were revised similarly. Consistent with findings using the original self-report version of the TriPM, internal consistencies in the current sample were .80 for Boldness, .95 for Meanness, and .95 for Disinhibition (Latzman et al., 2016). Internal consistencies in the current sample for the IDAS scales ranged from .85 (Lassitude) to .95 (Appetite Loss).

## ANALYSES

The analysis plan mirrored that in Study 1. First, bivariate and partial correlations between informant-rated TriPM dimensions and IDAS scales were examined. Next, an ESEM measurement model was fitted to the TriPM item-level data from informant participants. Based on an omnibus ESEM model, a latent internalizing factor was then estimated using IDAS scales as indicators and then regressed onto the three triarchic dimensions. Finally, latent CFA-based internalizing was regressed on regression-estimated triarchic factor scores along with boldness × meanness and boldness × disinhibition interaction terms.

## STUDY 2: RESULTS AND DISCUSSION

### BIVARIATE CORRELATIONS

Associations between triarchic psychopathy dimensions and affective psychopathology were first examined using bivariate and partial correlations to ascertain the relations between TriPM and IDAS scales (see Table 3; correlations within IDAS scales are included in Supplemental Table 2). Among TriPM scales, Boldness evidenced negative associations with Meanness and Disinhibition ( $r_s = -.14$  and  $-.31$ ,  $p_s < .01$ ), whereas Meanness and Disinhibition evidenced a strong positive association ( $r = .81$ ,  $p < .001$ ). At the bivariate (zero-order) level, TriPM Boldness showed its strongest associations with IDAS Well-Being (positive  $r = .55$ ,  $p < .001$ ) and General Depression and Dysphoria (negative for each;  $r_s = -.51$ , and  $-.50$ ,  $p_s < .001$ ); Disinhi-

3. We also computed scores on the TAPIR inconsistency scale (Mowle et al., 2015) for the informant-rating TriPM data. After excluding questionable protocols using this scale, we reran bivariate correlations between TriPM scales and IDAS scales. Results again remained virtually identical (range of differences in  $r_s = 1.001$  to  $1.0021$ ).

TABLE 3. Correlations Between TriPM Facet Scales and IDAS Symptom Scales: Study 2

	Boldness		Disinhibition		Meanness	
	Bivariate	Partial	Bivariate	Partial	Bivariate	Partial
Dysphoria	-.50	-.42 <sup>a</sup>	.66 <sup>a</sup>	.39 <sup>b</sup>	.51	.03
Lassitude	-.37	-.26	.59 <sup>a</sup>	.30 <sup>a</sup>	.49	.07
Insomnia	-.30	-.20 <sup>a</sup>	.51 <sup>a</sup>	.18	.47	.15
Suicidality	-.29	-.15	.60 <sup>a</sup>	.29 <sup>a</sup>	.52	.10
Appetite Loss	-.21	-.08	.51 <sup>a</sup>	.27 <sup>a</sup>	.42	.04
Appetite Gain	-.19	-.02	.53 <sup>a</sup>	.34 <sup>a</sup>	.41	-.04
Well-Being	.55 <sup>a,b</sup>	.53 <sup>a,b</sup>	-.29	.07	-.28	-.20
Ill Temper	-.37	-.32	.68 <sup>b</sup>	.16	.70 <sup>a,b</sup>	.41 <sup>a,b</sup>
Social Anxiety	-.43	-.32	.62 <sup>a</sup>	.33 <sup>a</sup>	.51	.07
Panic	-.28	-.14	.65 <sup>a</sup>	.33 <sup>a</sup>	.56	.12
Traumatic Intrusions	-.41	-.30	.65 <sup>a</sup>	.32 <sup>a</sup>	.55	.12
General Depression	-.51	-.44 <sup>a</sup>	.66 <sup>a</sup>	.35	.54	.09

Note. TriPM = Triarchic Psychopathy Measure; IDAS = Inventory of Depression and Anxiety.  $N = 301$  for bivariate (zero-order) associations and 297 for partial correlations due to pairwise versus listwise deletion, respectively, of cases with missing data; partial correlations statistically control for shared variance among the three TriPM Scales. <sup>a</sup>Highest correlation in a row (denoted separately for bivariate and partial correlations), <sup>b</sup>Highest correlation in a column (denoted separately for bivariate and partial correlations). Bolded correlations are significant at  $p < .001$ .

bition showed its strongest bivariate association with the IDAS Ill-Temper scale, followed by General Depression, Dysphoria, Traumatic Intrusions, and Panic ( $r_s = .65-.68$ ,  $p_s < .001$ ). Meanness was likewise most strongly associated with the IDAS Ill Temper scale ( $r = .70$ ,  $p < .001$ ) and showed medium to large associations with other IDAS scales ( $r_s$  ranged from  $-.41$  to  $.56$ , with the exception of  $-.28$  for Well-Being, all  $p_s < .001$ ).

Accounting statistically for shared variance among the three triarchic dimensions, partial correlations with symptom subscales of the IDAS were generally attenuated in magnitude compared with zero-order correlations. TriPM Boldness showed partial correlations with IDAS scores that were largely similar to its zero-order associations, with the exception of partial  $r_s$  with IDAS Appetite Loss and Gain scales, which were attenuated and no longer significant ( $r_s = -.08$  and  $-.02$ , respectively,  $p_s > .05$ ). TriPM Disinhibition showed a stronger partial  $r$  with the Dysphoria scale of the IDAS than with the Ill-Temper scale ( $r_s = .39$  vs.  $.16$ ,  $p_s < .001$ ), and was not associated with IDAS Well-Being after controlling for scores on the other two TriPM scales ( $r = .07$ ,  $p > .05$ ). Meanness remained most strongly associated with the IDAS Ill Temper scale ( $r = .41$ ,  $p < .001$ ), but its associations with all but four of the other IDAS scales no longer attained statistical significance. Notably, the magnitude of the partial association for Meanness with IDAS Well Being remained relatively consistent with its zero-order association ( $r = -.20$ ,  $p < .001$ ).

## STRUCTURAL MODEL

As in Study 1, we jointly analyzed all 58 TriPM items in a three-factor WLSMV ESEM. Consistent with Somma and colleagues and Study 1, this three-factor model yielded an acceptable fit to the data,  $\chi^2(1333) = 2255.361$ ,

**TABLE 4. Weighted Least Square Exploratory Structural Equation Models of Triarchic Psychopathy Measure Items for Boldness, Meanness, and Disinhibition Scales, Respectively: Exploratory Structural Equation Models—mTurk Informant-Report Sample (N = 299)**

TriPM Boldness Item	B	M	D	TriPM Meanness Item	M	B	D	TriPM Disinhibition Item	D	M	B
1. They're optimistic more...	.58	-.31	.06	2. How other people...	-.78	.13	.12	3. They often act on...	.36	.01	.01
4. They have no strong...	-.20	-.39	.13	6. They would enjoy being...	.45	.14	.47	5. They've often missed...	.52	.29	-.19
7. They are well equipped to...	.69	-.25	.12	8. They don't mind if...	.54	-.05	.38	9. Their impulsive...	.46	.38	-.29
10. They get scared easily.	-.48	-.11	.51	11. They sympathize with...	-.82	.16	.19	12. They have missed work...	.62	.28	-.19
13. They're a born leader.	.75	-.05	.16	14. They enjoy a good...	.41	.15	.55	15. They jump into things...	.54	.33	-.06
16. They have a hard time...	-.41	.03	.60	17. They return insults.	.37	-.08	.41	18. They've gotten in trouble...	.59	.34	-.20
19. They have a knack for...	.75	.15	.37	20. It doesn't bother them...	.77	.05	.30	21. They have good control...	.10	-.47	.59
22. They function well in...	.83	-.18	.15	23. They enjoy pushing...	.64	.07	.36	24. They have taken money...	.61	.36	-.09
25. They don't think of...	-.45	-.30	.45	26. They taunt people just...	.65	.0	.38	27. People often abuse...	.56	-.19	-.30
28. They're afraid of far...	.42	.07	.41	29. They don't see any point...	.67	.03	.33	30. They keep appointment...	-.01	-.53	.31
32. They can get over things...	.42	.10	.29	33. They are sensitive to...	-.89	.13	.35	31. They often get bored...	.37	.30	-.07
35. It worries them to go...	-.41	-.39	.49	36. They don't have much...	.76	.01	.25	34. They have conned...	.61	.34	-.23
38. They can convince...	.47	.38	.40	39. For them honesty...	-.73	.12	.00	37. They get in trouble for...	.55	.39	-.25
41. They don't like to take...	-.63	-.43	.43	40. They've injured people...	.53	.01	.53	43. They have taken items...	.64	.36	.03
44. It's easy to...	-.47	-.26	.58	42. They sometimes insult...	.68	-.01	.32	46. They have a hard time...	.44	.12	-.16
47. They stay away from...	-.12	-.54	.00	45. Things are more fun...	.47	.16	.53	49. They have lost a friend...	.53	.39	-.21
50. They don't stack up...	-.33	.27	.52	48. They don't care much if...	.75	.00	.30	51. Others have told them...	.57	.30	-.28
54. They never worry about...	.40	.21	.37	52. It's easy for them to...	-.81	.13	.35	53. They have robbed...	.65	.34	.08
57. They're not very good...	-.53	-.07	.48	55. It doesn't bother them...	.74	.01	.30	56. They have had problems...	.62	.31	-.26
								58. They have stolen...	.67	.37	.01

Note. TriPM: Triarchic Psychopathy Measure; TriPM items are numbered in the order in which they appear in the questionnaire; B: Boldness factor; M: Meanness factor; D: Disinhibition factor. Factor loadings  $\geq .30$  shown in bold.

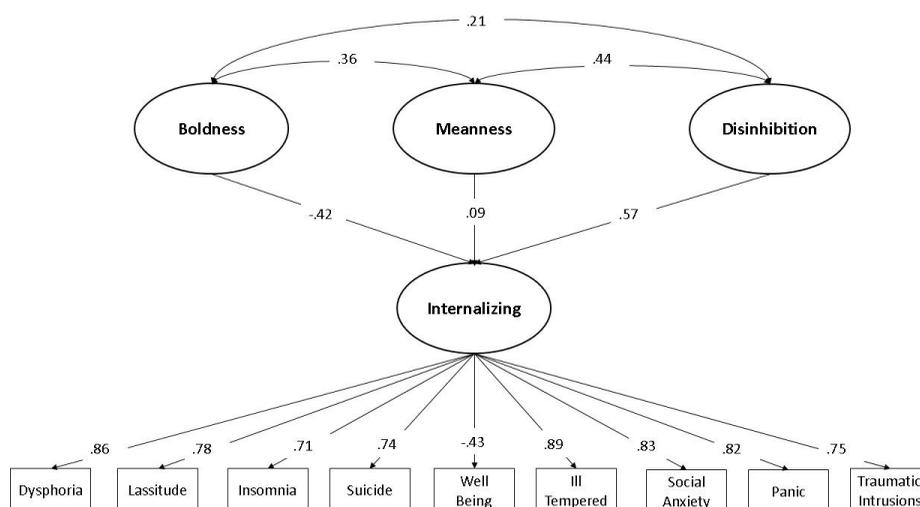


FIGURE 2. Exploratory structural equation model of the dimensions of informant-reported triarchic psychopathy and internalizing psychopathology.  $N = 299$ .  $\chi^2 = 3297.70$  (1879),  $p < .001$ ; RMSEA = .050 (CI [.047, .053]); CFI = 0.95, TLI = 0.94.

$p < .001$ , RMSEA = .048, 90% CI for RMSEA [.045, .052], TLI = .962, CFI = .969, with items assigned a priori to each triarchic dimension largely loading onto factors corresponding to boldness, meanness, and disinhibition (see Table 4). Cross-loadings of items across model factors in this informant dataset were more extensive than in the self-report dataset, and in some instances an item assigned to a given factor loaded more strongly onto another of the model factors. Specifically: Two items assigned to boldness (numbers 4 and 47, pertaining to intrepidity) loaded more strongly onto meanness, and three others (numbers 16, 44, and 50, pertaining to optimism, social assurance, and self-confidence, respectively) loaded more strongly, in a reverse (negative) direction onto disinhibition; one item assigned to meanness (number 14, pertaining to enjoyment of fighting) loaded more strongly onto disinhibition; and one item assigned to disinhibition (number 30, pertaining to keeping of appointments) loaded more strongly onto meanness.

A full ESEM model was then specified to estimate the associations between these three psychopathy dimensions and internalizing psychopathology—by regressing a latent internalizing psychopathology factor, estimated from IDAS scale scores as described earlier, onto latent dimensions of psychopathy delineated by the ESEM for the TriPM (see Figure 2). The resulting model showed acceptable fit to the data:  $\chi^2(1879) = 3297.701$ ,  $p < .001$ ; RMSEA = .050 (CI [.047, .053]); TLI = 0.941; CFI = 0.950. Within this model, the boldness factor correlated negatively with meanness and disinhibition ( $r_s = -.36$  and  $-.21$ , respectively,  $p_s < .001$ ), whereas meanness and disinhibition were positively correlated ( $r = .44$ ,  $p < .001$ ). In terms of relations with general internalizing, boldness showed a strong negative association with the general factor of the IDAS model ( $\beta = -.42$ ,  $SE = .03$ ,  $p < .001$ ),

whereas disinhibition evidenced a strong positive association ( $\beta = .57$ ,  $SE = .04$ ,  $p < .001$ ). In contrast, meanness showed a statistically significant but weak positive association with the general factor of the IDAS model ( $\beta = .09$ ,  $SE = .04$ ,  $p < .05$ ).

Finally, CFA-based internalizing was regressed onto regression-estimated triarchic factor scores and their product terms (i.e., boldness  $\times$  meanness, boldness  $\times$  disinhibition). As in Study 1, the boldness  $\times$  meanness interaction did not show a significant association with latent internalizing ( $\beta = -.00$ ,  $SE = -.06$ ,  $p > .90$ ), but the boldness  $\times$  disinhibition term did ( $\beta = -.09$ ,  $SE = .04$ ,  $p < .05$ ). Further consistent with Study 1, probing of this interaction term (see Supplemental Figure 2) revealed that the positive predictive relationship between disinhibition and internalizing was stronger among individuals rated as lower on boldness than among those rated as higher on boldness.

Taken together, bivariate and partial correlational results for the informant-rating study revealed opposing relations for the Boldness scale of the TriPM, relative to its Meanness and Disinhibition scales, with symptom scales of the IDAS, and latent variable modeling results for this study closely paralleled those from Study 1.

## GENERAL DISCUSSION

Using data for two samples, consisting of self-report scores for one and informant-rating scores for the other, we sought to address several equivocal findings in the literature on psychopathy and internalizing psychopathology. We did so by examining relations of psychopathy facets indexed by the TriPM with internalizing psychopathology and its symptom subdomains—through the use of both bivariate correlations and latent variable modeling. The latter analyses allowed for examination of the unique associations of the triarchic trait dimensions with internalizing symptomatology and provide insight into the relevance of psychopathy to this broad domain of psychopathology. In addition, we examined the generalizability of findings for participant self-report to informant ratings of known others, allowing us to evaluate the robustness and boundary conditions of the relations between psychopathy subdimensions and internalizing pathology.

Analyses of the self-report data for Study 1 revealed distinct associations for scores on the triarchic model dimensions with specific forms of internalizing psychopathology, in both bivariate (i.e., zero-order) and partial (i.e., accounting for the other two triarchic dimensions) correlations. Specifically, whereas Boldness and Disinhibition correlated strongly with Dysphoria, they did so in opposing directions, with higher Boldness relating to lower levels of Dysphoria and higher Disinhibition relating to higher levels. Meanness showed no association with Dysphoria despite its moderate overlap with Disinhibition ( $r = .47$  in the self-report dataset). Boldness showed an even stronger negative association with Social Anxiety symptomatology, consistent with the idea that this dispositional tendency accounts for the insouciant and charming demeanor of classically psychopathic individuals (Cleckley, 1941). After Dysphoria, Disinhibition correlated most strongly with Ill

TABLE 5. Goodness-of-Fit Statistics for Weighted Least Square Mean and Variance Adjusted/Robust Maximum Likelihood Exploratory Structural Equation Models of Triarchic Psychopathy Measure Items

Sample	$\chi^2$	TLI	CFI	RMSEA	90% CI
Italian Self-Report Sample (Somma et al.; $N = 1,082$ )	4835.28	.91	.92	.03	.03, .04
mTurk Informant-Report Sample ( $N = 299$ )	2255.36	.96	.96	.05	.05, .05
Self-Report Sample ( $N = 470$ )	2343.80	.89	.91	.04	.04, .04

Note. TLI: Tucker-Lewis index; CFI: comparative fit index; RMSEA: root mean square error of approximation; CI: confidence interval for RMSEA.

Temper, but its association was partly attributable to Meanness, which also showed a moderate-level association with this IDAS symptom scale. In the informant-rating data for Study 2, bivariate correlation results indicated less specificity in relations for TriPM Meanness and Disinhibition with the IDAS symptom scales, but partial correlations controlling for overlap between the two revealed mostly positive associations for Disinhibition, and generally negligible associations for Meanness. Boldness showed negative correlations with all subscales of the IDAS except reverse-keyed Well-Being, both in simple bivariate and partial correlation analyses.

Next, in separate analyses using data from the two studies, we specified ESEM structural models in order to evaluate relations between the triarchic dimensions quantified as latent variables and a latent internalizing factor encompassing the various IDAS symptom facets. Before fitting the omnibus ESEM models, we confirmed the latent structure of the triarchic psychopathy model. Consistent with findings from a large Italian participant sample (Somma et al., under review), this ESEM provided an acceptable fit to TriPM item scores in both the English language self-report and informant-rating datasets. Indeed, as shown in Table 5, the fit of this model for both our self-report and informant data in terms of statistical indices was comparable with that of the model for the Italian sample. This finding demonstrates promising replication across three samples and two informant modalities with regard to the latent structure of psychopathy as assessed by the TriPM. Nonetheless, as described earlier, cross-loadings onto non-assigned factors were evident for some TriPM items in the models for both datasets, and in a small number of instances within the informant dataset, items loaded more strongly onto non-assigned than assigned factors. As discussed below in the “Limitations” section, there are problems with attempting to model the triarchic dimensions using item-level data from the TriPM. The current results indicate this may be particularly a problem for informant-rating data, in which items used to index each dimension appear to covary more strongly with items used to index the other dimensions.

Of further note, results from the full omnibus ESEM model, in which latent internalizing was regressed onto these three triarchic dimensions, were congruent across the two datasets and consistent with expectations. Specifically, latent boldness was associated to a strong negative degree with the latent internalizing psychopathology factor, whereas latent disinhibition was positively associated with this factor to a strong degree. Latent meanness was generally unassociated with this broad internalizing factor. These findings

suggest that characteristics of boldness, such as fearlessness and low distress proneness, may promote potentially adaptive behaviors, or at least resilience toward internalizing-related impairment. This conjecture is broadly consistent with Cleckley's (1941) conceptualization of psychopathy as conferring a relative immunity to neurotic features. The contrasting positive association for disinhibition, which encompasses a range of maladaptive tendencies (Patrick et al., 2009), was also consistent with expectations, and consonant with the concept of disinhibition as encompassing affective dysregulation (Patrick et al., 2009). Similarly, other work has shown that higher trait disinhibition is associated with distress symptomatology as indexed by clinical interview (Nelson et al., 2016).

We did not advance specific hypotheses for meanness given prior mixed findings regarding associations of this dispositional facet with negative affectivity measures. Nonetheless, the finding that meanness was largely unrelated to internalizing psychopathology at the latent variable level may run counter to the idea that meanness (callous-unemotionality) comprises some component of dispositional fearlessness (Frick & Marsee, 2006; Patrick et al., 2009). Further research, in particular work that operationalizes fearlessness more distinctively from anxiousness/distress (Yancey, Venables, & Patrick, 2016) and from sensation seeking (Sylvers, Lilienfeld, & LaPrairie, 2011), is needed to clarify how meanness relates to internalizing psychopathology.

Finally, post-hoc analyses testing for potential interactive effects of boldness with the other two triarchic dimensions was performed. Consistent with previous findings (e.g., Sellbom, 2015), our results provide tentative evidence for the importance of considering interaction effects. Across samples, the association between disinhibition and internalizing varied by level of boldness, albeit at the trend level in the self-report sample. These results coincide with findings from previous studies that have reported interactions between boldness (or its reverse, dispositional fear) and disinhibition in predicting internalizing problems (e.g., Nelson et al., 2016; Venables, Hall, & Patrick, 2014; Venables et al., 2015). Specifically, they raise the possibility that boldness exerts protective effects against distress-related psychopathology in the presence of disinhibition, which is a well-established risk factor for such psychopathology.

## STRENGTHS, LIMITATIONS, AND FUTURE DIRECTIONS

The current study is the first to examine the utility of informant-report versions of the TriPM and IDAS (Study 2), providing valuable insight into their usefulness beyond self-report. There are several strengths to using informant-report data to detect psychopathy, among them the fact that informant-report data may help to circumvent some of the "blind spots" in psychopathic individuals' self-reporting (Grove & Tellegen, 1991; Lilienfeld & Fowler, 2006). Nonetheless, observed associations among scale scores within instruments (i.e., TriPM and IDAS intra-scale correlations) were greater for informant-rating than self-report data (see Supplemental Tables 1 and 2). This finding may reflect inflated correlations arising from shared method variance, or alternatively, from a "horn and halo" effect (i.e., a tendency to perceive

individuals as all “bad” or all “good”; Nisbett & Wilson, 1977; Thorndike, 1920). Given that observers typically possess limited knowledge of situational influences on the impulsive behavior of persons known to them, even those they know well, their informant ratings may to some extent reflect the “fundamental attribution error” (Ross, 1977). That is, informants may attribute behavior to dispositional tendencies (e.g., unreliability or antagonism) rather than to transient environmental causes. Nonetheless, the replicability of the latent structure of triarchic psychopathy using informant-report data as well as the consistent results across samples is promising and suggests an important role for informant-report methodologies in this area.

Still, the relationship of target participants to participant informants was not constrained by study instructions (i.e., participants could select any known person to rate). As a consequence, extraneous variance may have entered into the rating data based on differing relationship dynamics across informant-target dyads (e.g., degree of acquaintance, perceived closeness, significant other versus friend). To address this issue, it may be helpful in future research to place restraints on the individuals for whom informants provide ratings, or at least to evaluate relationship differences as moderators. Further, our approach to the assessment of constructs resulted in shared method variance across construct measurement. Although SEM is useful in disattenuating correlations among constructs accounting for unreliability, the presence of shared method variance may result in inflated associations among indicators of latent factors. It will be important for future research to include predictors (psychopathy facets) and criteria (internalizing symptom variables) assessed in different domains (e.g., self-report versus clinical interview).

A further limitation is that the TriPM may not be an optimal source of indicators for modeling the triarchic model dimensions as latent variables. The subscales of the TriPM were developed as brief, item-based measures of general factors from scale-based structural models of two distinct psychological domains—that is, externalizing disorders and associated traits (Krueger, Markon, Patrick, Benning, & Kramer, 2007), and fearfulness versus fearlessness-dominance (Kramer, Patrick, Krueger, & Gasperi, 2012). As such, the TriPM scales contain only a limited sampling of items from the many scales used to demarcate the factors of these larger structural models (i.e., 23 scales in the case of the externalizing model, 10 in the fear/fearlessness model). Given these considerations, it will be valuable in future work that seeks to model the triarchic dimensions as latent variables to employ a scale-level approach, in which the subscales of the TriPM are used as indicators along with other established triarchic scale measures (see, e.g., Drislane & Patrick, 2017).

These limitations notwithstanding, the current study provides valuable insights into the associations between psychopathy and internalizing psychopathology and the ability of both self-report and informant-report assessment to detect these associations. Our results highlight the relevance of the triarchic dimensions of psychopathy to internalizing psychopathology, with boldness reflecting low levels of fear- and distress-related symptom impairment, disinhibition reflecting high levels, and meanness being largely unrelated to internalizing. Our findings also point to small, but theoretically

important, interaction effects among these dimensions and underscore the potential protective effect of boldness against diatheses toward internalizing psychopathology. Moreover, in contrast to the claims of some authors (e.g., Vise, Lynam, Lamkin, Miller, & Pardini, 2016), our findings suggest that when considered as a multidimensional construct, psychopathy bears implications for considerably more than externalizing psychopathology. As such, our results highlight the value of the triarchic model conceptualization for interfacing research on psychopathy with the broader literature on common mental disorders (e.g., Krueger, 1999; Vaidyanathan, Patrick, & Iacono, 2011), allowing for enhanced cross-fertilization between the two. Further, given that the triarchic constructs represent biobehavioral constructs (i.e., dispositional dimensions with clear referents in biology and behavior), our findings may point to fruitful directions for models positing distinctive biological mechanisms for, and developmental pathways to, psychopathy subdimensions (Patrick & Bernat, 2009; Patrick & Drislane, 2015).

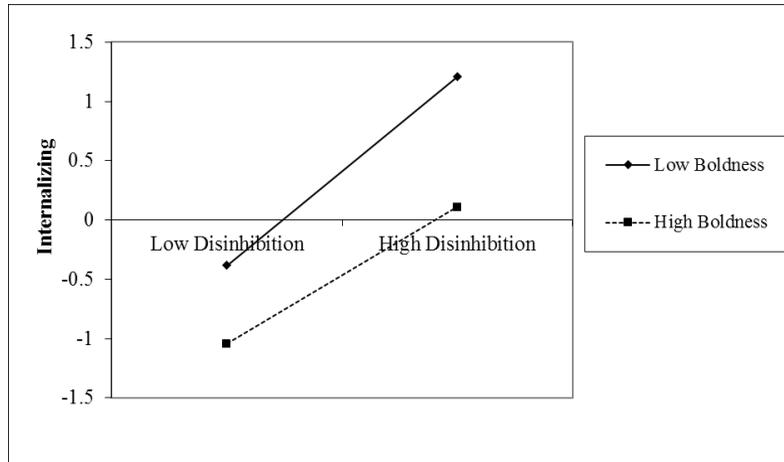
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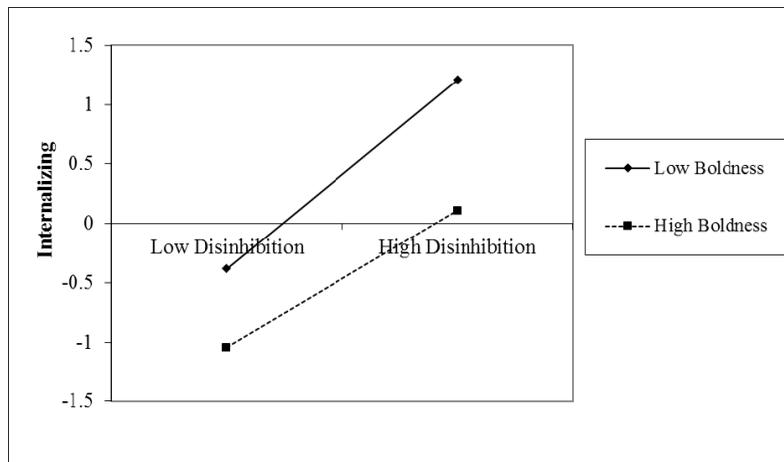
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SUPPLEMENTAL FIGURE 1. Interaction between self-reported disinhibition and boldness: associations with Internalizing. High and low values correspond to + 1.5 SDs from the mean.



SUPPLEMENTAL FIGURE 2. Interaction between informant-reported disinhibition and boldness: associations with Internalizing. High and low values correspond to + 1.5 SDs from the mean.

SUPPLEMENTAL TABLE 1. Inter-correlations Among IDAS Scales: Study 1

	Dysphoria	Lassitude	Insomnia	Suicidality	Appetite Loss	Appetite Gain	Ill Tempered	Well-Being	Social Anxiety	Panic	Traumatic Intrusion	General Depression
Dysphoria	—											
Lassitude	.69	—										
Insomnia	.52	.50	—									
Suicidality	.44	.29	.32	—								
Appetite Loss	.50	.43	.42	.24	—							
Appetite Gain	.34	.36	.25	.18	-.04	—						
Ill Tempered	.58	.42	.33	.35	.30	.29	—					
Well Being	-.43	-.27	-.14	-.28	-.20	.07	-.19	—				
Social Anxiety	.69	.55	.41	.45	.42	.30	.44	-.29	—			
Panic	.59	.52	.45	.41	.46	.28	.46	-.14	.55	—		
Traumatic Intrusion	.67	.47	.48	.39	.37	.30	.48	-.24	.56	.58	—	
General Depression	.94	.76	.65	.48	.63	.27	.54	-.52	.67	.60	.65	—

SUPPLEMENTAL TABLE 2. Inter-correlations Among IDAS Scales: Study 2

	Dysphoria	Lassitude	Insomnia	Suicidality	Appetite Loss	Appetite Gain	Ill Tempered	Well-Being	Social Anxiety	Panic	Traumatic Intrusion	General Depression
Dysphoria	—											
Lassitude	.82	—										
Insomnia	.78	.69	—									
Suicidality	.73	.64	.57	—								
Appetite Loss	.65	.55	.55	.71	—							
Appetite Gain	.58	.55	.50	.53	.38	—						
Ill Tempered	.72	.60	.59	.61	.49	.53	—					
Well Being	-.33	-.28	-.21	-.16	-.14	.02	-.22	—				
Social Anxiety	.83	.69	.67	.76	.66	.51	.65	-.16	—			
Panic	.77	.65	.67	.81	.68	.52	.66	-.12	.86	—		
Traumatic Intrusion	.82	.70	.65	.80	.61	.57	.74	-.19	.84	.80	—	
General Depression	.97	.84	.82	.76	.71	.56	.70	-.42	.81	.76	.82	—