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A TRIARCHIC MODEL ANALYSIS OF THE YOUTH PSYCHOPATHIC TRAITS INVENTORY

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The Triarchic model of psychopathy characterizes this complex condition in terms of distinct phenotypic constructs of boldness, meanness, and disinhibition. The current study evaluated the coverage of these constructs provided by a well-established inventory for assessing psychopathy in adolescents, the Youth Psychopathic Traits Inventory (YPI). A consensus rating approach was used to identify YPI items relevant to each Triarchic model construct, and convergent and discriminant validity of the resulting YPI-Triarchic scales were examined in relation to criterion measures consisting of scores on other psychopathy measures and relevant personality trait variables (N = 618, M age = 18.8). The YPI-Triarchic scales showed good internal consistency and exhibited properties largely consistent with predictions based on the Triarchic model, aside from somewhat greater than expected covariance between boldness and other facet scales. Findings are discussed in terms of their implications for interpreting scores on the YPI and for investigating distinctive components of psychopathy in youth.

Psychopathy is a multifaceted condition that encompasses distinct clinical features in differing domains (affective, interpersonal, behavioral). This results in heterogeneity of expression that some have argued is inadequately characterized using a simple categorical diagnosis (for an overview of alternative conceptions of psychopathy, see Skeem, Polaschek, Patrick, & Lilienfeld, 2011). Consistent with the dominant perspective among personality disorder researchers more broadly (Clark, 2007; Frances & Widiger, 2012; Livesley & Jang, 2000; Trull & Durrett, 2005), psychopathy is likely best conceptualized in trait-dimensional terms; however the precise nature and role of relevant trait dispositions remains unresolved (e.g., Lilienfeld et al., 2012; Miller & Lynam, 2012).

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To provide a descriptive framework for reconciling alternative conceptions of psychopathy, Patrick Fowles, and Krueger (2009) formulated the Triarchic model, which characterizes psychopathy in terms of varying configurations of three phenotypic tendencies: boldness, meanness, and disinhibition. These phenotypic tendencies are expected to be present in all established inventories of psychopathy, but to differing degrees and with variable overlap—depending upon the assumptions and methods applied in inventory development. The current study sought to evaluate the composition of a well-established inventory designed for use with older children and adolescents—the Youth Psychopathic Traits Inventory—from the standpoint of this model by rating items of this inventory for their relevance to each construct of the model, utilizing these ratings to develop item-based scale measures of the Triarchic constructs, and then evaluating these scales in terms of their interrelations and convergent/discriminant validity with external criteria.

ASSESSMENT OF PSYCHOPATHY IN ADULTS AND YOUTH

Historically, conceptions of psychopathy have varied in the relative emphasis placed on tendencies toward cruelty, violence, criminal behavior, coldness, and unemotionality (McCord & McCord, 1964; Robins, 1966) versus more adaptive dispositional qualities such as fearlessness, charm, sociability, and interpersonal dominance (Cleckley, 1941/1976; Lykken, 1995) in defining the condition. Adult psychopathy inventories similarly differ in the emphasis they place on aggressive externalizing proneness and overt criminal behavior relative to affective-interpersonal features (Drislane, Patrick, & Arsal, 2013).

The dominant inventory that has been used in research with adults is the Psychopathy Checklist-Revised (PCL-R; Hare, 2003), developed for correctional and forensic samples. The PCL-R consists of 20 items scored on the basis of a clinical interview and review of institutional records that index psychopathy in terms of affective-interpersonal (Factor 1) and impulsive-antisocial features (Factor 2), with extensive reference to criminal behaviors. The most widely used instrument for assessing psychopathy in children and adolescents, the 20-item Antisocial Process Screening Device (APSD; Frick & Hare, 2001), was modeled after the PCL-R and is designed for use with clinic-referred children. The APSD is rated by informants (e.g., parents, teachers) and yields a total score, along with scores on two or three factors: Callous/Unemotional (CU) traits, reflecting lack of remorse or guilt, callousness/lack of empathy, shallow or deficient affect, and lack of concern about performance; and Impulsive/Conduct Problems, reflecting impulsive-antisocial tendencies, which has been parsed into Impulsivity and Narcissism subfactors in some work (Frick & Ellis, 1999). The CU traits factor is considered to be particularly indicative of core psychopathic tendencies (Frick & Marsee, 2006). As a sign of the importance of CU traits in predicting antisocial behavior, the recently released fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*; American Psychiatric Association [APA], 2013) includes a "limited prosocial emotions" specifier for the diagnosis of conduct disorder in youth, intended to distinguish a psychopathic variant of this condition.

Studies using the PCL-R and the APSD have demonstrated distinctive correlates for lower order factors and facets of these measures, as well as considerable heterogeneity in presentation among individuals scoring high in overall scores (e.g., with regard to emotional stability/reactivity; Vaughn, Edens, Howard, & Smith, 2009; Verona, Patrick, & Joiner, 2001). As a consequence, individuals scoring similarly high on the PCL-R or the APSD often present with markedly different clinical profiles. Several authors (e.g., Lilienfeld & Fowler, 2006; Patrick et al., 2009; Skeem et al., 2011) have suggested that the heterogeneity that is captured by commonly used measures of psychopathy, including the PCL-R and the APSD, may reflect the underlying nature of the psychopathy construct—namely, that psychopathy represents the combination or configuration of multiple traits, rather than a unitary syndrome. The self-report Youth Psychopathic Traits Inventory (YPI; Andershed, Kerr, Stattin, & Levander, 2002) was developed for use with older children and adolescents from the general community. Like the APSD, the YPI was modeled in part on the PCL-R, but with reference to a three-factor model that focuses on items considered most traitlike (Cooke & Michie, 2001). A further source of inspiration for the YPI was Cleckley's (1941/1976) seminal clinical description of psychopathy, which also emphasizes dispositional features. Accordingly, the items of the YPI index psychopathy in trait-dispositional terms rather than in terms of overtly antisocial behaviors. More specifically, 10 core personality features were targeted, reflecting characteristics of arrogant-manipulative interpersonal style, deficient affective experience, and impulsive-irresponsible action (Andershed et al., 2002). To minimize distortion due to social undesirability of content, the items of the YPI were written in terms that might be considered positive or admirable by individuals high in psychopathic traits.

Mirroring the three-factor model of the PCL-R (Cooke & Michie, 2001), factor analyses of the 10 subscales of the YPI indicate the presence of three distinct but correlated factors (Andershed et al., 2002; Declercq, Markey, Vandist, & Verhaeghe, 2009; Dolan & Rennie, 2006; Neumann & Pardini, 2014): a Grandiose/Manipulative (G/M) factor, encompassing Dishonest Charm, Grandiosity, Lying, and Manipulation subscales; a Callous/Unemotional (C/U) factor, encompassing Callousness, Unemotionality, and Remorselessness subscales; and an Impulsive/Irresponsible (I/I) factor, encompassing Impulsivity, Thrill-Seeking, and Irresponsibility subscales. Previous studies have supported both the reliability and the validity of the YPI in a range of samples. In addition to demonstrating good internal consistency (Dolan & Rennie, 2006; Skeem & Cauffman, 2003), scores on the YPI are also strongly correlated with measures of antisocial/criminal behavior and externalizing psychopathology (Neumann & Pardini, 2014).

TRIARCHIC PSYCHOPATHY MODEL AND MEASURE

The Triarchic model of psychopathy (Patrick et al., 2009) provides a framework for accommodating heterogeneity of clinical expression and contrasting approaches to conceptualization and assessment by characterizing

psychopathy in terms of three phenotypic "building blocks" (cf. Skeem et al., 2011): boldness, meanness, and disinhibition. Boldness, emphasized in conceptions of psychopathy that focus on affective-interpersonal tendencies more so than criminal deviance (Cleckley, 1941/1976; Karpman, 1941; Lykken, 1957, 1995), encompasses tendencies toward fearlessness, tolerance of novelty and risk, resilience to stressors, social dominance, and high levels of self-confidence. Meanness, featured prominently in historical conceptions of *criminal* psychopathy (e.g., Hare & Neumann, 2008; McCord & McCord, 1964; Mealey, 1995; Robins, 1966, 1978), entails tendencies toward callousness and lack of empathy, deliberate cruelty, shallow emotional attachment, exploitative behavior, instrumental and predatory aggression, and excitement seeking through destruction. This component of psychopathy is reflected in the Affective facet of the PCL-R (e.g., lack of empathy/remorse, shallow affect), and to some extent also in the exploitative (conning/deceptive) features of the Interpersonal facet. Finally, disinhibition is characterized by deficient impulse control, poor self-regulation, failure to delay gratification, lack of control of negative emotion, and low frustration tolerance. This component of psychopathy is strongly related to general externalizing proneness (Achenbach & Edelbrock, 1978; Krueger et al., 2002) and disinhibitory psychopathology (Gorenstein & Newman, 1980) and is featured to varying degrees in all existing psychopathy assessment instruments (Drislane et al., 2013).

A self-report–based measure that was developed specifically to index the three facets of this model separately is the Triarchic Psychopathy Measure (TriPM; Patrick, 2010). The TriPM consists of 58 items that yield scores on Boldness, Meanness, and Disinhibition subscales. Studies with both community and forensic samples have provided evidence of convergent and discriminant validity for the subscales of the TriPM scales in relation to criteria of various types, in ways consistent with theory (Marion et al., 2013; Patrick, 2010; Sellbom & Phillips, 2013; Stanley, Wygant, & Sellbom, 2013). Scores on TriPM Boldness correlate negatively with scores on measures of neuroticism and anxiousness, and positively with scores on the Interpersonal facet of the PCL-R and the Fearless Dominance factor of the Psychopathic Personality Inventory (PPI; Benning, Patrick, Hicks, Blonigen, & Krueger, 2003; Lilienfeld & Widows, 2005) and with trait variables of dominance, extraversion, and thrill/adventure-seeking. TriPM Meanness correlates negatively with measures of empathy and agreeableness, and positively with scores on the Affective facet of the PCL-R, the Coldheartedness and Machiavellian Egocentricity subscales of the PPI, and trait measures of callous-unemotionality and narcissism. Scores on TriPM Disinhibition are negatively associated with traits of conscientiousness and planful control, and positively related to scores on the Lifestyle facet of the PCL-R and the Impulsive-Antisocial factor of the PPI, as well as with trait measures of impulsiveness, stimulation seeking, boredom proneness, and distress/dysphoria. The TriPM includes only minimal coverage of items directly indexing criminal behavior (e.g., theft), as the Triarchic model aims to describe core psychopathic traits, rather than behavioral consequences or covariates of these traits (Cooke, Michie, Hart, & Clark, 2004).

While the TriPM provides one approach to assessing the phenotypic constructs of the Triarchic model, the constructs themselves are viewed as open (Meehl, 1986) and measurable via differing instruments in alternative assessment domains (e.g., self-report, interview, behavioral observation), rather than being embodied in a particular assessment instrument. From this perspective, operationalization of the constructs of the model in other ways will be valuable for clarifying the nomological network of each and their interrelations. Further, operationalization of the Triarchic constructs from item sets of existing inventories can provide a basis for examining their correlates and etiological bases in existing datasets, including genetically informed (i.e., twin) datasets (cf. Benning, Patrick, & Iacono, 2005; Blonigen, Hicks, Krueger, Patrick, & Iacono, 2005). In an initial effort along this line, Hall et al. (2014) developed Triarchic subscales using the items of the PPI and demonstrated convergent and discriminant validity for these subscales in relation to external variables of various types, including corresponding subscales of the TriPM. Other recent work has demonstrated effective coverage of the Triarchic model constructs (indexed using the TriPM) in the new trait-based conceptions of adult antisocial personality disorder and psychopathy included in Section III of *DSM-5* (Anderson, Sellbom, Wygant, Salekin, & Krueger, 2014; Strickland, Drislane, Lucy, Krueger, & Patrick, 2013), as operationalized by self-report (Krueger, Derringer, Markon, Watson, & Skodol, 2012).

THE PRESENT STUDY

The present study was conducted to evaluate the extent to which the constructs of the Triarchic model (boldness, meanness, disinhibition) are represented with sufficient distinctiveness in the item set of the YPI to provide for the development of effective scale measures of these constructs. The YPI was considered a viable target for this endeavor because it was developed with reference to two conceptions of psychopathy (Hare, Cleckley) referenced in the Triarchic model formulation, and because of preliminary work indicating that the items of the YPI provide effective coverage of the Triarchic constructs as indexed by the TriPM (i.e., each subscale of the TriPM contributes distinctively to prediction of overall scores on the YPI; Drislane et al., 2013). The YPI has been widely used in both the United States and Europe, has been validated in community as well as forensic and other clinical samples (e.g., Andershed et al., 2002, Andershed, Hodgins, & Tengström, 2007), and has been administered along with criterion measures of various types in large-scale longitudinal twin samples (e.g., Lichtenstein, Tuvblad, Larsson, & Carlström, 2007), which could serve as a valuable basis for addressing questions about the etiology and developmental course of these distinguishable psychopathy facets.

The approach we used to evaluate items from the YPI scales for distinct relevance to constructs of the Triarchic model was a consensus-based construct rating approach (detailed in the Methods section) used in prior work with the PPI item set (Hall et al., 2014). Items of the YPI were rated for their relevance to constructs of the model by multiple raters, and ratings

were aggregated and used as a basis for constructing YPI-Triarchic (YPI-Tri) scales. Following development of the scales, their internal properties and convergent/discriminant validity were evaluated in relation to an array of psychopathy measures and normal-range personality variables in a large undergraduate sample. The following specific hypotheses were advanced based on descriptions of the Triarchic constructs in the model formulation (Patrick et al., 2009) and empirical findings regarding the external correlates of the TriPM subscales (Marion et al., 2013; Patrick, 2010; Sellbom & Phillips, 2013; Stanley et al., 2013):

(1) Indicators of boldness would derive primarily from items demarcating the G/M factor of the YPI, and scores on the resultant YPI-Boldness scale would converge strongly with Boldness as indexed by the TriPM and with the Fearless Dominance factor of the PPI and the PPI's item-based Boldness scale (Hall et al., 2014), and correlate positively with indices of dominance and negatively with indices of dispositional anxiety and fearfulness.

(2) Indicators of meanness would derive primarily from items demarcating the C/U factor of the YPI, and scores on the YPI-Meanness scale would show strong positive associations with scores on the Meanness subscale of the TriPM, the Coldheartedness and Machiavellian Egocentricity subscales of the PPI and its item-based Meanness scale, and other scales tapping callous-exploitative features of psychopathy and aggressive/antagonistic traits more broadly, and would exhibit robust negative associations with measures of nurturance and social connectedness.

(3) Indicators of disinhibition would derive primarily from items demarcating the I/I factor of the YPI, and scores on the resultant YPI-Disinhibition scale would correlate positively and robustly with scores on TriPM Disinhibition, PPI-based Disinhibition, and other scales tapping impulsive-antisocial features of psychopathy and reckless-unrestrained tendencies more broadly.

METHODS

PARTICIPANTS

Participants were 650 undergraduate students (55.6% female, *M* age = 18.8, *SD* = 1.63) from a large Southeastern university. The racial composition was 75.9% Caucasian, 8.9% African American, 1.4% Asian, 0.3% Native American, 2.7% biracial, and 10.8% missing racial information. Additionally, 14.3% of the sample self-identified as being of Hispanic ethnicity. A subset of participants (n = 19) failed to respond to a large number of the questionnaire items (>25% of items missing data) or displayed patterns of inconsistent responding on the PPI (i.e., scored ≥2 *SD* above the mean on the PPI Variable Response Inconsistency [VRIN] scale; n = 13), and thus were excluded from analyses, resulting in a total sample of 618 for the present study.

PROCEDURE

Participants provided written informed consent prior to completing the questionnaires. Data collection was completed in two waves. In the first, participants (n = 197) completed the questionnaires in person in groups of 5 to 20 using paper and pencil. In the second wave (n = 453), the questionnaires were administered online using a secure Internet-based survey database in order to increase the efficiency of data collection. Participants who completed the questionnaires in person versus online did not differ significantly in gender, race, or age, or in scores on the YPI. Participants completed the study for course credit, $15, or a combination of the two. The measures and procedures used in the current study were approved by the university's Institutional Review Board.

CRITERION MEASURES: ADULT PSYCHOPATHY INVENTORIES

Triarchic Psychopathy Measure (TriPM). The TriPM (Patrick, 2010) is a 58-item self-report inventory that yields a total psychopathy score and scores on Boldness, Meanness, and Disinhibition subscales. Responses are provided using a 4-point Likert format (True, somewhat true, somewhat false, False). The Disinhibition and Meanness subscales consist of items selected to index (Patrick, Kramer, Krueger, & Markon, 2013) the general disinhibition and callous-aggression factors, respectively, of the Externalizing Spectrum Inventory (ESI; Krueger, Markon, Patrick, Benning, & Kramer, 2007; Venables & Patrick, 2012). The items of the Boldness scale were selected to index a bipolar dimension of fear versus fearlessness (Kramer, Patrick, Krueger, & Gasperi, 2012) anchored at the low fear end by subscales of the PPI that define its Fearless Dominance factor. The TriPM's subscales have shown effective convergent and discriminant validity with measures of psychopathy and normal-range personality in both community and offender samples (Sellbom & Phillips, 2013; Stanley et al., 2013).

In the current sample, internal consistencies (α) for the TriPM subscales were .83 for Meanness and .79 for both Boldness and Disinhibition. Scores on TriPM Boldness and Disinhibition tend to be uncorrelated (i.e., r = –.10 within the current study sample), whereas scores on TriPM Meanness tend to correlate moderately with TriPM Disinhibition (r for current sample = .45) and to a modest degree with TriPM Boldness (r = .23 for current sample).

Psychopathic Personality Inventory (PPI). The PPI (Lilienfeld & Andrews, 1996) is a 187-item inventory developed to index personality traits relevant to psychopathy as described in influential theories, including that of Cleckley (1941/1976). Responses on the PPI yield a total score and eight subscale scores. Factor analyses indicate a two-factor structure to the subscales of the PPI, with one factor (Fearless-Dominance [FD]) marked by Social Potency, Stress Immunity, and Fearlessness scales, and the other (Impulsive-Antisociality [IA], alternatively labeled Self-Centered Impulsivity; Lilienfeld & Widows, 2005) marked by Machiavellian Egocentricity, Impulsive Nonconformity, Alienation, and Carefree Nonplanfulness scales. Coldheartedness, the

final subscale of the PPI, does not load distinctively on either factor. Patrick et al. (2009) postulated that the Coldheartedness scale is distinctly indicative of Meanness, whereas PPI-IA is indicative of Disinhibition primarily, and Meanness secondarily.

Along with examining correlations of the YPI-Tri scales with the two factors of the PPI and its Coldheartedness scale, we also examined their relations with scale measures of the Triarchic constructs derived from the items of the PPI (Hall et al., 2014) using the same consensus rating method used with the YPI items. In the current sample, the PPI-based Triarchic (PPI-Tri) scales showed adequate αs, ranging from .86 for PPI-Boldness to .75 for PPI-Disinhibition, and were less correlated with one another than corresponding subscales of the TriPM (i.e., *r* for PPI-Meanness with PPI-Disinhibition = .18 and with PPI-Boldness = .22; *r* for PPI-Boldness with PPI-Disinhibtion = –.03).

Self-Report Psychopathy Scale-III (SRP-III). The SRP-III (Paulhus, Hemphill, & Hare, 2009) is a 60-item scale designed to index facets of psychopathy encompassed by the PCL-R through self-report. It yields a total psychopathy score and scores on four subscales: Callous Affect (e.g., lack of empathic concern), Interpersonal Manipulation (e.g., instrumental use of flattery), Erratic Lifestyle (e.g., impulsivity in decisions), and Criminal Tendencies (e.g., involvement with the police). Within the current sample, α for the SPR-III as a whole was .93, and values of α for subscales ranged from .76 (Callous Affect) to .86 (Interpersonal Manipulation).

Levenson's Self-Report Psychopathy Scale (LSRP). The LSRP (Levenson, Kiehl, & Fitzpatrick, 1995) is a 26-item self-report measure initially developed to index "primary" and "secondary" subdimensions of psychopathy (Karpman, 1941). However, more recent empirical work supports a three-factor structure to the instrument (Brinkley, Diamond, Magaletta, & Heigel, 2008; Sellbom, 2011). On the basis of this work, we computed scores for Egocentricity, Callous, and Antisocial subscales of the LSRP along with a total score. Internal consistency for the LSRP as whole was .84, with αs somewhat lower for the Egocentricity (α = .81), Callous (α = .57), and Antisocial (α = .60) subscales due to fewer items comprising these scales (i.e., 4–10 items per subscale).

CRITERION MEASURES: JUVENILE PSYCHOPATHY SCALES

Inventory of Callous-Unemotional Traits (ICU). The ICU (Frick, 2004) is a 24-item measure that was developed to refine the conceptualization and measurement of callous-unemotional traits originally indexed by the CU factor of the ASPD. Internal consistency for the inventory in the current sample was .84.

Child Psychopathy Scale (CPS). The CPS (Lynam, 1997) is a 50-item self-report version of a parent rating scale developed for assessing psychopathic features in juveniles. The CPS was created to mirror the content of the PCL-

R and provides a total psychopathy score along with scores on 13 subscales (Glibness, Lack of Guilt, Poverty of Affect, Manipulation, Callousness, Untruthfulness, Parasitic Lifestyle, Behavioral Dyscontrol, Unreliability, Failure to Accept Responsibility, Lack of Planning, Impulsiveness, Boredom Susceptibility). Internal consistency for the CPS as a whole was .80, with internal consistency for its subscales ranging from .27 for Lack of Guilt to .74 for Behavioral Dyscontrol. Expectably, the subscales that showed lower values of α were those containing fewer items.

Antisocial Process Screening Device (APSD). The APSD (Frick & Hare, 2001) is a 20-item self-report scale adapted from a parent and teacher rating measure that assesses features of psychopathy in youth. Like the CPS, it was modeled after the PCL-R and yields a total score along with scores on two factors, Callous/Unemotionality (characterized by shallow and restricted affect, lack of guilt and remorse, and lack of empathy), and Impulsivity/Conduct Problems (I/CP). The I/CP factor can be further delineated into subfactors of Narcissism (egocentric manipulativeness) and Impulsivity (boredom proneness, risk-taking, and rashness). Internal consistency for the total score was $\alpha = .78$, and internal consistencies for the subscales ranged from $\alpha = .51$ (Callous/Unemotionality) to $\alpha = .67$ (Narcissism).

CRITERION MEASURES: NORMAL RANGE PERSONALITY MEASURES

35-item Multidimensional Personality Questionnaire (MPQ-35). A very brief (35-item) version of the MPQ (Tellegen, 2011) was administered that had been created for use in the MIDUS-II study of middle age (www.midus.wisc.edu). Participants rated each item on a 4-point Likert scale (1 = *strongly disagree* to 4 = *strongly agree*). The MPQ-35 yields scores on traits of Social Potency, Wellbeing, Achievement, Social Closeness, Stress Reaction, Alienation, Aggression, Control, Harm Avoidance, and Traditionalism. Internal consistencies for the 10 trait scales ranged from $\alpha = .74$ (Control) to $\alpha = .49$ (Traditionalism).

NEO-PI-R Antagonism. The NEO Personality Inventory- Revised (NEO PI-R; Costa & McCrae, 1992) was developed to operationalize the Five-Factor Model (FFM) of personality. The current study administered the 48 items of the Agreeableness-Antagonism scale. Items were completed using a 5-point Likert scale (1 = *strongly agree* to 5 = *strongly disagree*) and reversed to make high scores indicative of Antagonism. A total Antagonism score was calculated, along with scores on six lower order facets: (lack of) Trust, (lack of) Straightforwardness, (lack of) Altruism, (lack of) Compliance, (lack of) Modesty, and (lack of) Tendermindedness. The scale as a whole showed good internal consistency ($\alpha = .89$), with αs for the facet-level scales ranging from $\alpha = .51$ (lack of Tendermindedness) to $\alpha = .79$ (lack of Trust). The study protocol included only the 48 Antagonism items of the NEO-PI-R (as opposed to the entire 240-item inventory) in order to constrain the overall length of the questionnaire procedure, and because the domain of Antagonism was hypothesized to be especially central to psychopathy (Lynam &

Derefinko, 2006), and its meanness component specifically (Patrick et al., 2009; but see Poy, Segarra, Esteller, López, & Moltó, 2014, for an analysis of relations between the NEO-PI-R as a whole and facets of psychopathy as indexed by the TriPM). The NEO-PI-R Antagonism item set was used rather than a shorter length measure of this FFM construct because the NEO-PI-R provides for evaluation of lower order facets of Antagonism.

DATA ANALYTIC APPROACH

Scale Construction. Construction of the YPI-based Triarchic scales (Boldness, Meanness, and Disinhibition) occurred in three phases. First, in a development phase, candidate items were selected based on consensus ratings of the item set (50 items) of the YPI (Andershed et al., 2002). Following initial identification of candidate items, the YPI-Tri scales underwent a refinement phase, and then a final psychometric evaluation phase.

Development Phase and Candidate Item Scale Construction. Two clinical psychology graduate students and two advanced undergraduate psychology students served as raters, under the supervision of a clinically trained PhD psychologist (Christopher Patrick). Raters were provided with a Construct Definition Form that included narrative descriptions of the phenotypic constructs of *boldness*, *meanness*, and *disinhibition* described in the Triarchic model (Patrick et al., 2009). The raters were familiar with psychopathy and with the Triarchic model, but had no a priori expectations regarding how items of the YPI would relate to the constructs of the model. Raters judged the degree to which each item of the YPI related to each Triarchic construct, in each case addressing the question, "To what extent does this item represent the construct of 'X' as defined on your Construct Definition Form?," where "X" represented boldness, meanness, or disinhibition. The raters selected one of five choices for each item: unrelated to X, strongly represents HIGH X, somewhat represents HIGH X, somewhat represents LOW X, and strongly represents LOW X. This rating process for each of the three constructs was completed separately for all 50 items of the YPI.

Following initial ratings of the YPI items, candidate items for YPI-based Triarchic scales were identified for each construct based on the level of agreement across raters. Items that had been rated as strongly representing HIGH levels of a construct by at least three of four raters were selected as scale indicators. Items that had been rated as strongly representing LOW levels of a construct by at least three of four raters were also selected as scale indicators and were reverse coded. The number of initial candidate items for each scale was as follows: 11 for Boldness, 16 for Meanness, and 17 for Disinhibition.

Refinement Phase. The YPI-Tri scales were then refined by examining adjusted item-total *r*s for candidate items within target scales, and relations of target-scale items with aggregate scores for candidate items of other YPI-Tri scales. Items were deleted from target scales if they demonstrated poor item-total *r*s with other constituent items, such that their deletion improved scale homogeneity (Cronbach's alpha). Additionally, candidate items for a given

YPI-Tri scale were dropped if their removal reduced cross-correlations of the target scale with the other YPI-Tri scales. This resulted in the elimination of four candidate Boldness items, six candidate Meanness items, and three candidate Disinhibition items. After removing these nonoptimal candidate items, additional items that had been rated as *strongly* indicative of a particular target construct by at least two out of four raters and as *somewhat* indicative of that construct by the remaining two raters were evaluated for possible inclusion. Items meeting these criteria were retained only if they correlated more highly with the target scale than with the other two scales and contributed to better internal consistency of the target scale. This led to the addition of two items to the Boldness scale. The resultant Boldness (9 items) and Disinhibition (14 items) scales include only positively worded items, and the Meanness (10 items) scale includes three negatively worded items and seven positively worded items.

External Validation. Following scale construction, we evaluated the construct validity of the YPI-Tri scales in relation to external criteria by computing Pearson correlation coefficients between the YPI-Tri scales and the criterion variables described above, including self-report adult and youth psychopathy inventories and measures of normal-range personality. In addition, due to the correlated nature the YPI-Tri scales and prior evidence of suppressor relations among psychopathy facets (e.g., Frick & Ellis, 1999; Hicks & Patrick, 2006; Verona et al., 2001), in order to evaluate the unique contribution of each YPI-Tri scale to prediction of criterion measures, we conducted multiple regression analyses in which all three YPI-Tri scales were entered simultaneously as predictors of external criteria. We employed a conservative alpha of $p < .001$ in all tests of statistical significance to reduce the likelihood of family-wise Type I error due to multiple comparisons.

RESULTS

SCALE CONTENT EVALUATION AND PROPERTIES

Psychometric Evaluation Phase. The final YPI-Tri scales demonstrated acceptable internal consistencies: $\alpha = .82$, .81, and .75 for Disinhibition, Meanness, and Boldness, respectively. The YPI-Tri scales were moderately positively intercorrelated with one another. The strongest association was between YPI Meanness and Boldness ($r = .48$, $p < .001$), with correlations more modest for Meanness with Disinhibition ($r = .33$, $p < .001$) and Disinhibition with Boldness ($r = +0\ .38$, $p < .001$).[1,2]

1. The YPI-Tri scales demonstrate greater distinctiveness from one another than the original three factors of the YPI. In the present sample, correlations between the YPI factors were as follows: G/M with C/U, $r = .57$; G/M with I/I, $r = .54$; C/U with I/I, $r = .39$.

2. Confirmatory Factor Analysis was performed to evaluate the fit of a correlated three-factor model to the data. This model provided adequate absolute fit to the data as indicated by root mean square error of approximation (RMSEA) (.07) and markedly improved fit over the baseline model ($\Delta\chi^2[36] = 3931.10$, $p < .001$); however, indexes of incremental fit (i.e., CFI, TLI) were not appropriate to evaluate for the three-factor model, as RMSEA for the null model (.132) was less than .158 (Kenny, 2012).

TABLE 1. List of YPI Items Comprising Each YPI-Tri Scale

YPI-Triarchic Scale	Item#	Item	YPI Factor	YPI Scale
Boldness				
	2	I usually feel calm when other people are scared.	Callous/Unemotional	Unemotionality
	36	What scares others usually doesn't scare me.	Callous/Unemotional	Unemotionality
	19	I have talents that go far beyond other people's.	Grandiose Manipulation	Grandiosity
	41	I am destined to become a well-known, important and influential person.	Grandiose Manipulation	Grandiosity
	11	I can make people believe almost anything.	Grandiose Manipulation	Manipulation
	15	I am good at getting people to believe in me when I make something up.	Grandiose Manipulation	Manipulation
	20	It's easy for me to manipulate people.	Grandiose Manipulation	Manipulation
	1	I like to be where exciting things happen.	Impulsive/Irresponsible	Thrill-seeking
	22	I like to do things just for the thrill of it.	Impulsive/Irresponsible	Thrill-seeking
Disinhibition				
	43	Sometimes I find myself lying without any particular reason.	Grandiose Manipulation	Lying
	50	I've often gotten into trouble because I've lied too much.	Grandiose Manipulation	Lying
	3	I prefer to spend my money right away rather than save it.	Impulsive/Irresponsible	Impulsiveness
	9	I consider myself as a pretty impulsive person.	Impulsive/Irresponsible	Impulsiveness
	18	It often happens that I talk first and think later.	Impulsive/Irresponsible	Impulsiveness
	26	If I get the chance to do something fun, I do it no matter what I had been doing before.	Impulsive/Irresponsible	Impulsiveness
	32	It often happens that I do things without thinking ahead.	Impulsive/Irresponsible	Impulsiveness

	5	I have probably skipped school or work more than most other people.	Impulsive/Irresponsible	Irresponsibility
	13	If I won a lot of money in the lottery I would quit school or work and just do things that are fun.	Impulsive/Irresponsible	Irresponsibility
	16	I have often been late to work or classes in school.	Impulsive/Irresponsible	Irresponsibility
	34	It has happened several times that I've borrowed something and then lost it.	Impulsive/Irresponsible	Irresponsibility
	40	I often don't/didn't have my school or work assignments done on time.	Impulsive/Irresponsible	Irresponsibility
	4	I get bored quickly when there is too little change.	Impulsive/Irresponsible	Thrill-seeking
	29	I get bored quickly by doing the same thing over and over.	Impulsive/Irresponsible	Thrill-seeking
Meanness				
	12	I think that crying is a sign of weakness, even if no one sees you.	Callous/Unemotional	Callousness
	17	When other people have problems, it is often their own fault, therefore, one should not help them.	Callous/Unemotional	Callousness
	23	It's important to me not to hurt other people's feelings (r).	Callous/Unemotional	Callousness
	35	I often become sad or moved by watching sad things on TV or film (r).	Callous/Unemotional	Callousness
	49	I usually become sad when I see other people crying or being sad (r).	Callous/Unemotional	Callousness
	8	I have the ability not to feel guilt and regret about things that I think other people would feel guilty about.	Callous/Unemotional	Remorselessness
	21	I seldom regret things I do, even if other people feel that they are wrong.	Callous/Unemotional	Remorselessness
	44	To feel guilty and remorseful about things you have done that have hurt other people is a sign of weakness.	Callous/Unemotional	Remorselessness
	48	To feel guilt and regret when you have done something wrong is a waste of time.	Callous/Unemotional	Remorselessness
	39	I don't understand how people can be touched enough to cry by looking at things on TV or movie.	Callous/Unemotional	Unemotionality

Content Evaluation. During the development phase, raters were blind to the assignment of items to particular factors and subscales of the YPI. Despite this, items that ultimately composed the YPI-Tri scales related to the YPI factors and subscales in ways largely consistent with hypotheses. The YPI-Disinhibition scale consists mostly of items from YPI subscales demarcating its I/I factor, along with two items from the Lying scale, associated with the G/M factor. The YPI-Meanness scale consists entirely of items from YPI subscales demarcating its C/U factor. In contrast with the dominant representation of items from the I/I factor in the YPI-Disinhibition scale and items from the C/U factor in the YPI-Meanness scale, the YPI-Boldness scale is less distinctively associated with the G/M factor, with five of its items coming from the subscales demarcating this factor, and the remainder coming from the Unemotionality subscale of the C/U factor and the Thrill-seeking subscale of the I/I factor. The full listing of item numbers comprising the YPI-Tri scales is presented in Table 1.

RELATIONS WITH ADULT PSYCHOPATHY MEASURES

Results for analyses examining relations between YPI-Tri subscales and subscales of the TriPM along with scores on other well-validated adult psychopathy measures (PPI, PPI-Tri, SRP-III, LSRP) are presented in Table 2. At the zero-order (simple bivariate) level, YPI-Boldness was correlated robustly as expected with TriPM Boldness (r = .58), but it also showed higher than expected associations with TriPM Meanness and Disinhibition (rs = .39 and .22, ps < .001). By contrast, YPI-Meanness showed a moderate (r = .49) zero-order correlation with TriPM Meanness and only modest associations with TriPM Boldness and Disinhibition (rs = .25 and .19, respectively). Similar convergent/discriminant validity was evident for YPI-Disinhibition: Scores on this scale correlated markedly more with TriPM Disinhibition (r = .66) than with either TriPM Boldness (r = .05; Steiger's Z = 11.89, p < .001) or TriPM Meanness (r = .35; Steiger's Z = 7.78, p < .001).

Notably, in regression models incorporating all three YPI-Tri scales as predictors of each TriPM scale (see Table 2, upper section, parenthesized values), YPI-Boldness showed a strong predictive relationship with TriPM Boldness (β = .64), while showing only a modest association with TriPM Meanness (β = .15) and a negligible relationship with TriPM Disinhibition (β = –.03). The implication is that the YPI-Boldness scale as a whole contains a component of variance in common with both YPI-Meanness and YPI-Disinhibition that likely accounts for its elevated associations with these TriPM counterpart scales. The specificity of relationships of YPI Meanness and Disinhibition with counterpart TriPM scales was also more strongly evident in regression analyses (i.e., YPI-Meanness emerged as the sole robust predictor of TriPM Meanness when entered together with YPI-Boldness and YPI-Disinhibition, and YPI-Disinhibition emerged as the dominant predictor of TriPM Disinhibition when entered together with YPI-Boldness and YPI-Meanness; Table 2, upper section).

With regard to the PPI, each of the YPI-Tri scales displayed strong zero-order correlations with PPI Total scores (rs = .45–.66; Table 2). However,

TABLE 2. Relations Between Adult Psychopathy Measures and Scores on the YPI-Based Triarchic Subscales: Pearson Correlations and Regression Coefficients

	Boldness	Meanness	Disinhibition	Multiple
	r(β)	*r*(β)	*r*(β)	***R***
Triarchic Psychopathy Measure				
TriPM Total Score	**.58 (.38)**	**.46** (.18*)	**.51 (.30)**	**.68**
Boldness	**.57 (.64)**	**.25** (.01)	**.05** (–.19*)	**.60**
Meanness	**.39 (.15*)**	**.49 (.36)**	**.35** (.17*)	**.54**
Disinhibition	**.22** (–.03)	**.19** (–.02)	**.66 (.68)**	**.66**
Psychopathic Personality Inventory				
PPI-Total Score	**.66 (.46)**	**.45** (.10)	**.59 (.38)**	**.76**
PPI-FD	**.64 (.66)**	**.32** (.03)	.17* (–.10)	**.64**
PPI-IA	**.40** (.11)	**.36** (.11)	**.68 (.60)**	**.71**
PPI Coldheartedness	**.23** (.02)	**.51 (.57)**	.02 (–.18*)	.55
PPI-Based Triarchic Scales (PPI-Tri; Hall et al., in press)				
PPI Boldness	**.58 (.64)**	**.26** (.01)	.09 (–.16*)	**.60**
PPI Meanness	**.40** (.12)	**.62 (.57)**	**.26** (.02)	**.64**
PPI Disinhibition	**.20** (–.06)	**.19** (–.01)	**.66 (.68)**	**.66**
Self-Report Psychopathy Scale-III				
SRP-III Total Score	**.65 (.35)**	**.63 (.36)**	**.58 (.33)**	**.80**
Interpersonal Manipulation	**.66 (.46)**	**.56 (.29)**	**.44** (.17*)	**.74**
Callous Affect	**.51 (.23)**	**.68 (.56)**	**.31** (.04)	**.71**
Erratic Life Style	**.60 (.38)**	**.40** (.06)	**.66 (.50)**	**.77**
Criminal Tendencies	**.30** (.04)	**.39 (.27)**	**.43 (.32)**	**.51**
Levenson Self-Report Psychopathy Scale				
LSRP Total Score	**.33** (.13)	**.36 (.20)**	**.40 (.29)**	**.48**
Egocentricity	**.44** (.19*)	**.53 (.36)**	**.43 (.24)**	**.61**
Callous	**.26** (.02)	**.43 (.34)**	**.37 (.24)**	**.49**
Antisocial	.15* (–.07)	**.21** (.06)	**.51 (.52)**	**.52**

Note. $N = 618$. Bold font entries signify r / β magnitudes ≥ .20 that are significant at the $p < .001$ level. Entries marked with an asterisk are significant at the $p < .001$ level. Zero-order correlations (*r*) reflect bivariate correlations for each YPI-Triarchic subscale score and criterion measure. To index distinct contributions of each of the YPI-Triarchic subscale scores to prediction of criterion measures after controlling for their shared variance, standardized regression coefficients (β) from regression models incorporating all three YPI-Triarchic subscales as predictors are presented alongside zero-order correlations. Multiple R reflects regression model incorporating all three YPI-Triarchic subscales (Boldness, Meanness, and Disinhibition) as predictors of the criterion measure; TriPM = Triarchic Psychopathy Measure; PPI = Psychopathic Personality Inventory, FD = Fearless-Dominance, IA = Impulsive-Antisociality; PPI-Tri = PPI-based Triarchic Scales; SRP-III = Self-Report Psychopathy Scale-III; LSRP = Levenson Self-Report Psychopathy Scale.

when entered concurrently in a regression model, only YPI-Boldness (β = .46) and YPI-Disinhibition (β = .38) emerged as unique predictors, indicating that the zero-order association for YPI-Meanness with total PPI scores was attributable to its overlap with YPI-Boldness and YPI-Disinhibition. Likewise, scores on the Fearless-Dominance (FD) and Impulsive-Antisociality (IA) factors of the PPI showed positive zero-order correlations with all three YPI-Tri scales. Again, however, when overlap among these YPI scales was accounted for by including them as joint predictors in a regression model, YPI-Boldness alone was predictive of PPI-FD (β = .66), and YPI-Disinhibi-

tion was most strongly predictive of PPI-IA (β = .60). Both YPI-Boldness and YPI-Meanness were significantly correlated with scores on Coldheartedness, but again, regression analysis revealed the association for YPI-Boldness to be attributable to its overlap with YPI-Meanness (i.e., only YPI-Meanness exhibited positive prediction [β = .57] when the three YPI-Tri scales were included as joint predictors).

Results for the PPI-Tri scales closely paralleled those for the TriPM scales. At the zero-order level, YPI-Boldness showed a strong positive relationship as expected with PPI-Boldness (*r* = .58) while exhibiting higher than expected positive associations (*r*s = .40 and .20) with PPI-Meanness and PPI-Disinhibition scales. YPI-Meanness and YPI-Disinhibition showed clearer discriminant validity, correlating strongly with counterpart Meanness and Disinhibition scales of the PPI (*r*s = .62 and .66, respectively) and only modestly with noncounterpart PPI scales (*r*s = .09–.26; Steiger's Z = 8.42–11.55, *p*s < .001). When scores on all three YPI-Tri scales were entered together in regression models predicting scores on each of the PPI-Tri scales, robust positive associations were evident only for counterpart scales in all cases (βs = .57–.68; βs for noncounterpart scales = –.16 to +.12; see Table 2, middle section, parenthesized values).

The YPI-Tri scales showed weaker differentiation as anticipated in their relations with the intercorrelated facet scales of the SRP-III, particularly at the zero-order level (Table 2). When included together in a regression model, all three YPI-Tri scales contributed distinctively and at comparable levels to prediction of total SRP-III scores (βs = .33–.36). Regression analyses revealed selective associations for YPI-Tri scales in relation to three of four SRP-III facet scales: YPI-Boldness was related most strongly to the SRP Interpersonal Manipulation facet, YPI-Meanness was related most strongly to the SRP Callous Affect facet, and YPI-Disinhibition was related most strongly to the SRP Erratic Lifestyle facet. YPI-Meanness and YPI-Disinhibition contributed about equally to prediction of the fourth facet of the SRP, Criminal Tendencies (βs = .27 and .32, respectively), with no distinct contribution evident for Boldness (β = .04).

At the zero-order level, all three YPI-Tri scales showed robust positive associations with scores on the LSRP as a whole and each of its correlated subscales. The three YPI scales correlated to similar degrees with LSRP total scores and with scores on the LSRP Egocentricity (*r*s = .43–.53) and Callous (*r*s = .26–.43) subscales. By contrast, YPI-Disinhibition correlated more strongly than either YPI-Boldness or YPI-Meanness with the LSRP Antisocial subscale (*r* = .51 vs.15 and .21, respectively; Steiger's Zs > 7.05, *p*s < .001). The selectivity of the relationship for YPI-Disinhibition with the LSRP Antisocial subscale became more apparent when scores for all three YPI-Tri scales were included together as predictors in a regression model (i.e., β for Disinhibition was .52, as compared to –.07 and .06 for Boldness and Meanness). Evidence for a preferential relationship of YPI-Meanness with the Callous subscale also emerged in the regression analysis for this LSRP subscale (i.e., β for Meanness in this case was .34, versus .02 and .24 for Boldness and Disinhibition). Less selectivity of relationship was evident in the regression

TABLE 3. Relations Between Child Psychopathy Measures and Scores on the YPI-Based Triarchic Subscales: Pearson Correlations and Regression Coefficients

	Boldness	Meanness	Disinhibition	Multiple
	r(β)	*r*(β)	*r*(β)	*R*
Inventory of Callous-Unemotional Traits				
ICU Total Score	**.26** (–.10)	**.63** (**.65**)	**.30** (.12*)	**.65**
Unemotional	.14* (.00)	**.37** (**.43**)	–.04 (–.18*)	**.41**
Callous	**.20** (–.17*)	**.53** (**.53**)	**.39** (**.28**)	**.60**
Uncaring	.18* (–.14)	**.47** (**.47**)	**.34** (**.23**)	**.53**
Antisocial Process Screening Device				
APSD Total Score	**.49** (.15*)	**.51** (**.27**)	**.67** (**.52**)	**.75**
Callous-Unemotionality	.18* (–.15*)	**.50** (**.52**)	**.31** (**.20**)	**.55**
Impulsivity	**.32** (.06)	**.25** (**.01**)	**.68** (**.65**)	**.68**
Narcissism	**.43** (.25)	**.37** (**.16***)	**.41** (**.26**)	**.52**
Child Psychopathy Scale				
CPSTotalScore	**.35** (.16*)	**.28** (**.09**)	**.45** (**.38**)	**.51**
Impulsiveness	.11* (–.02)	.07 (–.07)	**.39** (**.43**)	**.41**
Behavioral Dyscontrol	.01 (–.09)	.02 (–.02)	**.23** (**.27**)	**.25**
Lack of Planning	.11* (–.04)	.14* (.08)	**.30** (**.29**)	**.30**
Unreliability	.03 (–.14)	.11 (.07)	**.31** (**.35**)	**.34**
Parasitic Lifestyle	**.25** (.09)	**.24** (.12)	**.32** (**.27**)	**.38**
Boredom Susceptibility	**.37** (**.24**)	.19* (–.07)	**.48** (**.42**)	**.53**
Failure to Accept Responsibility	**.37** (**.27**)	**.24** (.05)	**.32** (**.22**)	**.43**
Untruthfulness	**.39** (**.28**)	**.27** (.07)	**.32** (**.20**)	**.44**
Glibness	**.30** (**.30**)	**.08** (–.12)	**.22** (.15*)	**.34**
Manipulation	**.36** (**.29**)	**.21** (.02)	**.27** (.16*)	**.39**
Callousness	.13* (–.00)	**.22** (.19*)	.16* (.11)	**.25**
Lack of Guilt	**.26** (.16)	**.29** (**.23**)	.10 (–.04)	**.33**
Poverty of Affect	.02 (–.18*)	**.21** (**.22**)	**.23** (**.23**)	**.31**

Note. $N = 618$. Bold font entries signify r / β magnitudes ≥ .20 that are significant at the $p < .001$ level. Entries marked with an asterisk are significant at the $p < .001$ level. Zero-order correlations (*r*) reflect bivariate correlations for each YPI-Triarchic subscale score and criterion measure. To index distinct contributions of each of the YPI-Triarchic subscale scores to prediction of criterion measures after controlling for their shared variance, standardized regression coefficients (β) from regression models incorporating all three YPI-Triarchic subscales as predictors are presented alongside zero-order correlations. Multiple R reflects regression model incorporating all three YPI-Triarchic subscales (Boldness, Meanness, and Disinhibition) as predictors of the criterion measure; ICU = Inventory of Callous-Unemotional Traits; APSD = Antisocial Process Screening Device; CPS = Child Psychopathy Scale.

analysis for the LSRP Egocentricity subscale (i.e., βs were .36, .24, and .19 for Boldness, Meanness, and Disinhibition, respectively).[3]

RELATIONS WITH CHILD PSYCHOPATHY MEASURES

Correlational and regression analysis results for relations between YPI-Tri scales and child psychopathy measures (ICU, APSD, CPS) are presented in Table 3.

With regard to the ICU, all three YPI-Tri scales showed significant positive relations with ICU total scores at the bivariate level, with the association for YPI-Meanness ($r = .63$) markedly larger as expected than associations for

3. For purposes of comparison with other published work, we also examined associations of YPI-Tri scales with scores on the original Primary and Secondary subscales of the LSRP. For these LSRP subscales, simple *r*s and βs from regression analyses incorporating all three YPI-Tri scales as predictors were as follows: Primary – *r*s/βs for YPI-Boldness, Meanness, and Disinhibition = .45/.17, .56/.40, and .43/.23, respectively; Secondary – *r*s/βs = .19/–.09, .26/.10, and .60/.60, respectively. All *r*s for each of the LSRP subscales, and all βs for the Primary subscale, were significant at $p < .001$; for the Secondary subscale, only the β for YPI-Disinhibition was significant.

either Boldness or Disinhibition (*r*s = .26 and .30, respectively; Steiger's Zs = 10.55 and 8.52, *p*s < .001). Controlling for overlap through multiple regression, the specificity of relationship for YPI-Meanness was further enhanced (Table 3, upper section, parenthesized values). For the APSD and its correlated subscales, findings paralleled those for the SRP-III and its facet scales.

Relations with APSD total scores were moderate to high (*r*s = .49–.67) for all YPI-Tri scales, with greater specificity evident in relation to two of the three APSD subscales: Callous-Unemotionality (*r* clearly highest for YPI-Meanness; Steiger's Z > 4.62, *p*s < .001) and Impulsivity (*r* clearly highest for Disinhibition; Table 3, second section; Steiger's Z > 10.98, *p*s < .001). Specificity in these cases was again even more evident in regression analysis. The other APSD subscale, Narcissism, did not show strong differential associations with YPI-Tri scales either at the zero-order level or in regression analyses.

In contrast with other adult and youth psychopathy inventories, scores on the various subscales of the CPS were generally most related to scores on the YPI-Disinhibition scale (Table 3, lower section), and in a regression model predicting CPS total scores from all YPI-Tri scales, YPI-Disinhibition emerged as the strongest unique predictor (β = .38), with YPI-Boldness contributing only modestly (β = .16). Notably, the exceptions to this pattern were CPS subscales indexing Glibness and Manipulation (more strongly associated with Boldness than with Disinhibition or Meanness in the context of regression analyses), and those indexing Callousness and Lack of Guilt (more strongly associated with Meanness than with Boldness or Disinhibition in the context of regression analyses).

RELATIONS WITH NORMAL-RANGE PERSONALITY VARIABLES

Finally, results for correlation and regression analyses examining the relations between YPI-Tri scales and normal-range personality variables (MPQ traits and NEO-PI-R Antagonism facets) are presented in Table 4.

The YPI-Tri scales showed clearer discriminant relations with MPQ trait scales than with adult and youth psychopathy scales. In simple bivariate and (even more so) multiple regression analyses, YPI-Boldness showed unique positive relations with traits of Social Potency, Wellbeing, and Achievement, a distinct negative association with Stress Reaction, and a preferential negative association with Harm Avoidance; YPI-Meanness showed a unique negative association with Social Closeness; and YPI-Disinhibition showed unique positive associations with Alienation and Stress Reaction, a unique negative association with Achievement, and a preferential negative association with Control. All three YPI-Tri scales showed significant positive associations with MPQ Aggression at the zero-order level (*r*s = .27–.39), but controlling for overlap through regression, significant unique associations were evident only for YPI-Meanness and YPI-Disinhibition. A further notable finding was that cooperative suppressor effects were evident for YPI-Boldness and YPI-Disinhibition in relation to MPQ traits of Stress Reaction and Achievement,

TABLE 4. Relations Between Normal-Range Personality Measures and Scores on the YPI-Based Triarchic Subscales: Pearson Correlations and Regression Coefficients

	Boldness	Meanness	Disinhibition	Multiple
	r(β)	*r*(β)	*r*(β)	***R***
Multidimensional Personality Questionnaire (35-item)				
Social Potency	**.52 (.66)**	.10 (–.17*)	.06 (–.14*)	**.57**
Wellbeing	**.23 (.37)**	–.05 (–.18*)	–.04 (–.12)	**.32**
Achievement	.19* **(.39)**	–.05 (–.11)	**–.26 (–.38)**	**.42**
Social Closeness	.07 **(.24)**	**–.21 (–.30)**	–.08 (–.07)	**.29**
Stress Reaction	–.08 **(–.23)**	.02 (.02)	**.28 (.36)**	**.35**
Alienation	.04 (–.08)	.11 (.08)	**.21 (.21)**	**.22**
Aggression	**.27** (.02)	**.39 (.31)**	**.37 (.26)**	**.47**
Control	**–.27** (–.10)	–.19* (.02)	**–.50 (–.47)**	**.51**
Harm Avoidance	**–.30 (–.26)**	–.15* (.02)	**–.23** (–.13)	**.33**
Traditionalism	–.17* (–.12)	–.12 (.02)	–.16* (–.12)	**.20**
NEO-PI-R Antagonism				
Antagonism Total Score	**.50 (.24)**	**.57 (.40)**	**.42 (.20)**	**.66**
(lack of) Trust	.14* (–.04)	**.31 (.30)**	.19* (.10)	**.33**
(lack of) Straightforwardness	**.61 (.43)**	**.49 (.23)**	**.42** (.18*)	**.67**
(lack of) Altruism	.18* (–.15*)	**.48 (.47)**	**.39 (.29)**	**.56**
(lack of) Compliance	**.39 (.24)**	**.36** (.18*)	**.33** (.18*)	**.47**
(lack of) Modesty	**.44 (.38)**	**.31** (.12)	**.20** (.01)	**.46**
(lack of) Tendermindedness	**.23** (.03)	**.41 (.38)**	.19* (.05)	**.42**

Note. $N = 618$. Bold font entries signify r / β magnitudes $\geq .20$ that are significant at the $p < .001$ level. Entries marked with an asterisk are significant at the $p < .001$ level. Zero-order correlations (*r*) reflect bivariate correlations for each YPI-Triarchic subscale score and criterion measure. To index distinct contributions of each of the YPI-Triarchic subscale scores to prediction of criterion measures after controlling for their shared variance, standardized regression coefficients (β) from regression models incorporating all three YPI-Triarchic subscales as predictors are presented alongside zero-order correlations. Multiple R reflects regression model incorporating all three YPI-Triarchic subscales (Boldness, Meanness, and Disinhibition) as predictors of the criterion measure; MPQ = Multidimensional Personality Questionnaire: 35-item; NEO-PI-R = NEO Personality Inventory–Revised.

(i.e., associations of each YPI scale with these traits increased, in *opposing* directions, when their overlap was controlled for).

Finally, with regard to the FFM domain of antagonism, all three YPI-Tri scores showed significant positive associations with NEO-PI-R Antagonism total and facet scores, and each contributed uniquely to prediction of NEO-PI-R Antagonism total scores in a regression model, with YPI-Meanness contributing most strongly (β = .40; Table 4, lower section). In regression models for facet scores, YPI-Meanness contributed distinctively to all facets of NEO-PI-R Antagonism (and selectively, in the case of [lack of] Trust and [lack of] Tendermindness) with one exception: (lack of) Modesty, which was associated selectively with YPI-Boldness. YPI-Boldness also contributed distinctively (i.e., over and above Meanness) to prediction of (lack of) Straightforwardness and Compliance. YPI-Disinhibition did not show selective associations with any facet of Antagonism but contributed distinctively to prediction of

(lack of) Altruism and, to a lesser degree, (lack of) Straightforwardness and Compliance.[4]

DISCUSSION

The current study evaluated the content of a well-established self-report inventory for assessing psychopathic tendencies in youth, the YPI, in terms of its distinctive coverage of constructs of the Triarchic model of psychopathy. To do this without wedding our evaluation to a specific operationalization of the model (e.g., TriPM or PPI), we applied a construct-rating approach to this task. Items of the YPI were judged for resemblance to prototypical descriptions of the Triarchic model constructs (cf. Hall et al., 2014), and 33 of 50 constituent items determined to be preferentially relevant to one construct or another were used to form Triarchic scales—with the Disinhibition scale consisting mostly of items from the I/I factor of the YPI, the Meanness scale consisting entirely of items from the C/U factor, and the Boldness scale consisting partly of items from the G/M factor scale and partly of items from the I/I and C/U factor scales. These resultant scales were then evaluated in terms of their internal properties and relations with criterion measures of psychopathy and psychopathy-relevant personality traits.

Before proceeding to discussion of key findings, some limitations are important to acknowledge. First, the present study employed a nonclinical (undergraduate) sample, which may limit generalizability to more severe forensic or correctional populations in which the base rate of psychopathy is higher. Nonetheless, prior research has demonstrated consistent structural properties for other psychopathy self-report instruments across community and forensic samples (e.g., Williams, Paulhus, & Hare, 2007). Additionally, the current study relied exclusively on self-report measures, which may artificially inflate observed relations between indicators due to shared method variance. Future research would benefit from inclusion of criterion measures from other domains (e.g., interview, behavior, physiology). Furthermore, questionnaire measures were administered in a standard sequence rather than being counterbalanced for order across participants, raising the possibility that fatigue could have affected participants' responses on questionnaires that appeared later in the protocol (i.e., CPS, SRP-III).

Notwithstanding these limitations, our findings advance understanding of what the YPI measures in relation to other psychopathy inventories and serve to illustrate (along with Hall et al., 2014) how the facet constructs

4. Supplemental regression analyses were performed controlling for gender and race. All associations reported above remained significant. Race was a significant predictor of ICU total and Unemotionality subscale scores ($p < .001$) over and above gender and YPI-Tri scales, with African American participants scoring significantly higher than Caucasian participants. Gender was a significant predictor over and above race and YPI-Tri scales ($p < .001$) of total scores on the TriPM, SRP-III, and PPI (men > women), as well as scores on TriPM Meanness, PPI-Fearless Dominance, PPI-Boldness, PPI-Meanness, SRP-III Callous Affect, Erratic Lifestyle, and Criminal Tendencies subscales (men > women), and MPQ Traditionalism (women > men). The unique predictive associations between gender and race with criterion measures were all of modest magnitude (βs = .12–.21).

of the Triarchic model can be operationalized using items from established inventories—creating opportunities for innovative work with existing datasets. In general, the YPI-Tri scales demonstrated patterns of convergent and discriminant validity consistent with theory and findings from empirical work on the TriPM. The YPI-Disinhibition scale was positively related to criterion measures indexing externalizing tendencies, including scales assessing for impulsivity, irresponsibility, antisocial behavior, and negative affectivity. The YPI-Meanness scale was most strongly associated with measures of coldheartedness/remorselessness, interpersonal antagonism, poverty of affect, and lack of close attachments. Findings for YPI-Boldness were more mixed. At the simple bivariate level, this scale showed expected convergent validity with criterion indices of glibness/interpersonal manipulativeness, immodesty, dominance/agency, and fearlessness, but higher than expected associations with a number of criterion measures expected to relate mainly to meanness and disinhibition. However, clearer discriminant validity was evident for this scale when variance in common with the other YPI-Tri scales was accounted for through regression analysis. In particular, after controlling for shared variance, YPI-Boldness remained related to the aforementioned criteria and evidenced a selective association with low anxiousness (stress reactivity), while no longer exhibiting associations with variables such as impulsiveness (low control), aggression, or callousness/coldheartedness.

These results, together with observed instances of cooperative suppressor effects for YPI-Boldness and YPI-Disinhibition in relation to certain criterion measures (MPQ Stress Reaction and Achievement, in particular; cf. Verona et al., 2001), indicate the presence of a prominent common variance component among the three YPI-Tri scales. This finding coincides with prior behavior genetic work (Larsson, Andershed, & Lichtenstein, 2006) demonstrating a heritable dominant factor underlying the factor scales of the YPI. Findings from the current study, considered in light of the fact that the YPI was developed using the three-factor model of the PCL-R as a referent, suggest that this common variance component reflects aggressive-externalizing tendencies akin to the general factor of the PCL-R (cf. Patrick, Hicks, Nichol, & Krueger, 2007; Patrick et al., 2009).

Interrelations among the YPI-Tri scales also differed somewhat compared to counterpart TriPM and PPI-Tri scales. Relative to corresponding Triarchic scales from these inventories, the YPI-Boldness scale showed stronger relations with YPI-Meanness and YPI-Disinhibition scales (*rs* = .48 and .38, respectively) than have been reported for the Boldness scale of the TriPM with its Meanness and Disinhibition scales (*rs* = .23 and –.10, respectively; Drislane et al., 2013), or for the item-based Boldness scale of the PPI with its other scales (*rs* = .21 and –.03, respectively; Hall et al., 2014). By contrast, the Meanness and Disinhibition scales of the YPI were less interrelated (*r* = .33) than those of the TriPM (*r* = .45), as is also true for counterpart scales of the PPI (*r* = .21). Additionally, YPI-Meanness converged more strongly with its PPI counterpart than its TriPM counterpart (*r*s = .62 versus .48), whereas YPI-Disinhibition correlated to a similar high level (both *r*s = .66) with its TriPM and PPI counterparts.

This direct comparison of these three operationalizations of the Triarchic constructs (TriPM, PPI-Tri, and YPI-Tri) highlights important implications for interpreting findings based on alternative measures of these constructs. First, the YPI provides for less distinctive operationalization of the boldness facet of psychopathy than either the TriPM or PPI, but more effective separation of meanness and disinhibition facets than the TriPM. The overlap between boldness and disinhibition in particular is potentially problematic in view of conceptual and empirical reasons for separating operationalizations of these phenotypic constructs (e.g., theory/evidence pointing to distinct etiological bases for the two; Blonigen et al., 2005; Fowles & Dindo, 2009). While our findings indicate that boldness and disinhibition as indexed by the YPI can be effectively separated through use of regression analysis, instances may arise in which it is useful to examine relations for YPI-Boldness as a manifest score variable, disentangled from disinhibition. One approach for achieving this would be to compute residual scores reflecting variance unique to YPI-Boldness after regressing out variance in common with YPI-Disinhibition scores. Residual scores computed in this manner would allow for enhanced flexibility in evaluating bivariate associations between YPI-Boldness and external criterion measures, and allow for the incorporation of YPI-Boldness as an indicator in multivariate structural models, or testing for interactions between YPI-Boldness and disinhibitory/externalizing tendencies in the prediction of clinical outcomes (cf. Smith, Edens, & McDermott, 2013), for example.[5]

Developing effective measures of boldness is important given ongoing debates regarding the importance of boldness in classic and contemporary conceptions of psychopathy (Lilienfeld et al., 2012; Marcus, Fulton, & Edens, 2013; Miller & Lynam, 2012), and recent work suggesting a role for boldness in distinguishing psychopathy from *DSM*-defined antisocial personality disorder (Venables, Hall, & Patrick, 2014).

These direct comparisons also indicate that meanness as indexed by the YPI is more similar to meanness as indexed by the PPI than it is to TriPM Meanness—perhaps reflecting greater separation from a common disinhibition construct. Support for this interpretation is provided by the finding that the YPI-Disinhibition scale is correlated to the same high degree with the

5. Supplemental analyses were conducted to evaluate correlations for residualized YPI-Boldness scores computed in this manner with available criterion measures. YPI-Boldness residual scores exhibited bivariate associations with subscales of both adult and youth psychopathy measures more in line with expectation, and similar to associations for Boldness-specific variance in regression models. For example, compared with full YPI-Boldness scores, YPI-Boldness residuals correlated to a comparable high degree with PPI-Fearless Dominance (r = .63), but only modestly with PPI-Impulsive Antisociality (r = .16). Similarly, YPI-Boldness residuals correlated to a significant degree with the Narcissism scale of the APSD (r = .27), but negligibly with the APSD's Callous-Unemotionality and Impulsivity scales (rs =.06 and .07). YPI-Boldness residuals remained significantly related to scores on the ICU, but at a decreased level (r = .14), reflecting the fact that YPI-Boldness remained correlated with YPI-Meanness (r = .36) even after removing variance in common with YPI Disinhibition. YPI-Boldness residual scores also showed clearer convergent and discriminant relations with normal-range personality variables than full YPI-Boldness scores (e.g., enhanced positive and negative correlations, respectively, with MPQ Achievement and Stress Reaction [rs = .31 and –.19], and reduced positive and negative correlations, respectively, with MPQ Aggression and Control [rs = .13 and –.10]).

The full set of correlations between YPI-Boldness residual scores and variable criterion measures can be obtained from the first author upon request.

disinhibition scales of the other two inventories as they correlate with one another (i.e., $r > .6$; Hall et al., 2014)—as would be expected for indicators of a common construct. This finding is important in itself, in light of evidence that disinhibition as indexed both by PPI-IA (which correlates > .8 with PPI-Disinhibition; Hall et al., 2014) and the general factor of the ESI (which correlates > .9 with TriPM Disinhibition; Patrick et al., 2013) is prominently heritable (Blonigen et al., 2005; Yancey, Venables, Hicks, & Patrick, 2013) and is associated with abnormalities in brain response (e.g., reduced P300 brain potential amplitude; Carlson, Zayas, & Guthormsen, 2009; Yancey et al., 2013). Our findings, in conjunction with those of Hall et al. (2014), indicate that YPI-Disinhibition effectively indexes this same biologically based dispositional construct.

Also important, in view of extensive evidence for distinct correlates (e.g., Frick & White, 2008; Venables & Patrick, 2012) and etiological bases (e.g., Kendler, Ohlsson, Sundquist, & Sundquist, 2014; Kendler et al., 2012) for general disinhibitory and callous-aggressive tendencies, is the finding of effective separation between YPI-Disinhibition and YPI-Meanness scales. As such, these YPI-Tri scales can provide a means for investigating these separable components of psychopathy in youth, with important implications for understanding distinct developmental pathways to aggressive versus nonaggressive forms of externalizing psychopathology. In particular, data from longitudinal, genetically informed studies that include the YPI along with criterion variables of interest at differing ages, such as the Swedish Twin Study of Child and Adolescent Development (Lichtenstein et al., 2007), can provide a valuable basis for investigating questions pertaining to the temporal stability, heritability, and perhaps interactive effects of distinct facets of psychopathy across development. Research of this kind will be particularly important for developing effective methods for preventing or curtailing psychopathic tendencies identified early in life.

Effective separation of these distinct psychopathy facets as operationalized by the YPI thus represents an important step toward expanding our understanding of the nature and bases of boldness, meanness, and disinhibition. Efforts of this kind appear particularly timely, as the newly released fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*; APA, 2013) includes specifiers for distinguishing psychopathic variants of antisocial behavior disorders at both child and adult levels. Specifically, the main "Diagnostic Criteria and Codes" section of *DSM-5* (Section II) now includes a "limited prosocial emotions" specifier for conduct disorder that captures the callous-unemotional traits concept (akin to meanness) from the child psychopathy literature (Frick & Marsee, 2006; Frick & White, 2008), and the new "Emerging Measures and Models" section (III) includes a dimensional approach to characterizing antisocial personality disorder through reference to traits from domains of disinhibition and antagonism (viz., meanness) and specifying a distinct psychopathic variant of this disorder in terms of other traits reflecting boldness (Strickland et al., 2013).

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