A test of the construct validity of the Triarchic Psychopathy Measure in an Italian community sample

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Abstract

The Triarchic Psychopathy Measure (TriPM) is a relatively new self-report measure of the basic traits thought to be associated with psychopathy: Boldness, Disinhibition and Meanness. The TriPM was administered to 286 Italian individuals along with the Psychopathy Personality Inventory-Revised as well as measures of negative affect (anxiety, depression, stress, and hopelessness) and normal-range personality traits. The Italian TriPM showed excellent reliability and was minimally influenced by age and education. Some interesting differences emerged between males and females even though the overall pattern of correlations for TriPM scales with many criterion measures was fairly consistent across gender. TriPM Boldness was associated with indices of adaptive function as well as maladjustment. TriPM Disinhibition was most strongly associated with indices of the behavioral deviance, as well as internalizing problems. Scores on TriPM Meanness were most strongly associated with scales indexing coldheartedness, Machiavellianism, and antagonism. These findings broaden the nomological network of the Triarchic model of psychopathy.

1. Introduction

In the last few years, unresolved issues in the study of psychopathy have been revisited. First, evidence supporting a dimensional as opposed to typological view of psychopathy raised questions about the unitary versus configural nature of the construct. Second, the role of adaptive versus maladaptive features in psychopathy were discussed. Third, it was debated whether antisocial or criminal behavior should be considered a defining feature of psychopathy or instead as a potential consequence or expression of it. Other discussion points included the need to separate symptom indicators from clinical outcomes in order to avoid criterion contamination and limits on the applicability of crime-oriented diagnostic criteria in non-forensic settings (Lilienfeld, Watts, Smith, Berg, & Latzman, in press; Miller & Lynam, in press; Patrick & Drislane, in press).

Patrick, Fowles, and Krueger (2009) advanced a Triarchic model of psychopathy as a point of reference for reconciling differing historic conceptions of psychopathy (and alternative approaches for assessing it), and for addressing the aforementioned points of contention. According this model, psychopathy encompasses these three distinct but intersecting phenotypic tendencies: disinhibition, boldness, and meanness.

Disinhibition is defined as the general proneness toward externalizing problems and comprises traits such as impulsivity, irresponsibility, and hostility. It represents the nexus of impulsivity and negative emotionality (e.g., Krueger, Markon, Patrick, Benning, & Kramer, 2007). Boldness entails traits of emotional stability, dominance, self-assurance, and social efficacy (Benning, Patrick, Hicks, Blonigen, & Krueger, 2003; Kramer, Patrick, Krueger, & Gasperi, 2012). Lastly, Meanness (for which referents include the “callous-unemotional” factor of child psychopathy and the “callous-aggression” subdomain of the externalizing spectrum in adults (Frick & Hare, 2001; Krueger et al., 2007)) encompasses tendencies toward manipulativeness, lack of empathy, inability to form close attachments with others, and cruelty.

Patrick’s model allows for understanding psychopathy in its different manifestations (i.e., criminal and noncriminal, unsuccessful
and successful, primary and secondary) and therefore may serve as a vehicle for linking conceptions of psychopathy per se to broader dimensional models of normal personality and psychopathology (Patrick & Drislane, in press).

The Triarchic Psychopathy Measure, a 58-item self-report inventory that assesses Boldness (19 items), Disinhibition (20 items) and Meanness (19 items) through separate targeted subscales, represents the most common way to operationalize phenotypic constructs of the Triarchic model. In studies conducted so far, the disinhibition scale was associated with measures of impulsivity and fun seeking, low levels of self-discipline, and higher degrees of emotional instability. The boldness scale has typically correlated in a positive direction with traits of narcissism, thrill seeking, extraversion, fearlessness, stress immunity and in a negative direction with measures of neuroticism. Lastly, TriPM meanness was associated with measures of Machiavellianism, low empathy, and aggressiveness (for details on development of the TriPM, as well as a review of the main results in literature, please refer to Patrick & Drislane, in press).

However, further studies are needed to extend what is known about the psychometric properties and correlates of the TriPM scales, including the potential moderating role of gender or the association between TriPM scores and educational attainment. Additionally, research is needed to establish the potential utility of the TriPM in cultural contexts different from the USA, since cultural values play a crucial role in defining the way people interpret and express their emotions and clinical symptoms (e.g., Sica, Novara, & Sanavio, 2002; Sica, Taylor, Arrindell, & Sanavio, 2006).

In particular, this study was designed to examine the reliability as well construct validity of the TriPM in relation to a psychopathy-specific measure (i.e., Psychopathic Personality Inventory-Revised) and other conceptually-relevant criteria including normal-range personality traits and psychological distress (anxiety, depression, stress, hopelessness).

1.1. Hypotheses

Since the PPI-R includes a broad factor labeled fearless-dominance (FD) directly reflecting boldness and extracted via factor analysis on the PPI-R subscales (Benning et al., 2003), we hypothesized that that scores on FD of the PPI-R (and its constituent subscales) would correlate strongly and preferentially with TriPM Boldness. On the other hand, positive relations were predicted for TriPM Disinhibition with the self-centered impulsive factor of the PPI-R (PPI-R-SCI) and its constituent subscales, given evidence that this factor indexes externalizing proneness. We further hypothesized that scores on PPI-R Coldheartedness (a measure of callousness and low empathy) would be strongly and uniquely associated with TriPM Meanness. Lastly, it was expected that also PPI-R Machiavellian Egocentricity (which indexes callous-aggressiveness) would be related somewhat to TriPM Meanness.

In addition, we predicted that anxiety, depression, stress, and hopelessness would be mainly related (in a positive direction) to disinhibition, because one of its core features is negative emotionality. On the contrary, an inverse association between psychological distress and boldness was expected since this TriPM facet is commonly related in a negative direction with measures of neuroticism.

Regarding the associations between the TriPM and basic personality traits (i.e. the Five Factor Model), we predicted that: (1) disinhibition would be strongly associated with low Conscientiousness, low Agreeableness, and high Neuroticism, since high impulsivity and emotional instability are the core features of this facet; (2) boldness would be associated with low Neuroticism and high Extraversion, and to some extent low Agreeableness, since it represents the nexus of stress immunity, thrill-adventure seeking/
first step, three independent researchers translated the questionnaire from English to Italian and then reached agreement on a common version. The shared form was then back-translated by a bilingual person with an extensive knowledge of psychological research. The back-translation was sent to Christopher Patrick (i.e., the author of the measure) who provided suggestions for refinements in wording to make the Italian version as adherent as possible to the original version. The refined Italian version was again back-translated by another bilingual expert and sent to the author, who considered it to be nearly identical to the original one.

2.2.2. Psychopathic Personality Inventory – Revised (PPI-R)

The PPI-R (Lilienfeld & Widows, 2005) is a 154-item self-report measure of psychopathic personality features. The items are answered using a 4-point Likert scale. Items are grouped into eight subscales, seven of which can be organized into two higher-order factors: Fearless Dominance (PPI-R-FD), including the subscales Stress Immunity, Social Influence, and Fearlessness; and Self-Centered Impulsivity (PPI-R-SCI), including the subscales Rebellious Nonconformity, Blame Externalization, Machiavellian Egocentricity, and Carefree Nonplanfulness. Coldheartedness, the final PPI-R subscale, does not load on the either of the PPI-R higher-order factors and is often treated as a third, stand-alone factor. In a previous study, the Italian version of the PPI-R demonstrated good internal consistency (Cronbach’s alpha ≥ .80 for most scales) and significant and meaningful associations among the PPI-R scales and MMPI-2 scales (La Marca, Berto, & Rotetto, 2008).

2.2.3. NEO Five Factor Inventory (NEO-FFI)

The NEO-FFI (Costa & McCrae, 1992) comprises 60 items derived from a factor analysis of the longer, 240 item instrument the NEO-PI. The resulting short scales correlated upwards of 0.68 with the full NEO-PI trait scales, and demonstrated good internal reliabilities. For each item, participants indicate their degree of agreement on a five point Likert scale. The NEO-FFI has been translated and tested in many different languages and populations worldwide, and has demonstrated good validity and reliability (e.g., Aluja, García, Rossier, & García, 2005; McCrae & Allik, 2002). For the current study, the NEO-FFI items were extracted from the Italian NEO-PI-R (Caprara, Barbaranelli, Hahn, & Comrey, 2001), which likewise exhibits good content validity and excellent psychometric features.

2.2.4. The Depression Anxiety Stress Scales-21 (DASS-21)

The DASS-21 (Lovibond & Lovibond, 1995) was developed to measure emotional distress in three sub categories of depression, anxiety and stress. The self-report questionnaire contains 21 items (seven items for each category) which are scored using a four-point rating scale. The DASS-21 has been well-validated in a variety of populations (see, Oei, Sawang, Goh, & Mukhtar, 2013, for a review). In a previous study, the Italian version of the DASS-21 showed good internal consistency and temporal stability, and each DASS-21 scale demonstrated good construct validity (Bottesi et al., submitted for publication).

2.2.5. Beck Hopelessness Scale (BHS)

The BHS (Beck, Weissman, Lester, & Trexler, 1974) is an internationally accepted and widely used measure in suicide research (e.g., Aish & Wasserman, 2001). It consists of a list of 20 true/false statements. The Italian version of the BHS has likewise been found to discriminate between patients who attempted suicide or are actively suicidal from those without these features (Pompili et al., 2009).

3. Results

Cronbach’s alpha coefficients for TriPM total and scales exceeded .80. Correlations among the three subscales were low to moderate. The associations among the three TriPM dimensions demonstrated partial independence of the single dimensions from a common trait (Table 1).

Age was negatively correlated with TriPM Disinhibition (r = −.14, p = .02), Meanness (r = −.13, p = .03) and total scores (r = −.12, p = .04). Furthermore, the Disinhibition subscale negatively correlated with education (r = −.12, p = .04). Such correlations are considered small in magnitude according to standard convention (Cohen, 1988).

With regard to gender, Boldness, Meanness, and total scores were significantly higher in male participants (see Table 1).

3.1. Relations between TriPM scales and PPI-R scales and factors

At the zero-order level, psychopathy total scores as measured by PPI-R were associated with TriPM Boldness (r = .60), Disinhibition (r = .38), and Meanness (r = .60). Moreover, Boldness was mainly related to PPI-R-FD and its components; Disinhibition showed high correlations with PPI-R-SCI and medium correlations with all its components; and Meanness showed the highest correlations with PPI-R Machiavellian Egocentricity and Coldheartedness, and with PPI-R-SCI (Table 2).

Findings from regression analyses accounting for the overlap between the Triarchic domains further clarified these associations. As showed by beta coefficients, Boldness primarily explained variance in PPI-R-FD; Disinhibition explained variance primarily in PPI-R-SCI; lastly, Meanness captured unique variance in PPI-R Machiavellian Egocentricity and Coldheartedness. Boldness was also related with PPI-R Machiavellian Egocentricity whereas Meanness exhibited unique associations with Fearlessness (Table 3).

To explore the impact of gender on the previous results, a series of hierarchical linear regression models were computed with each PPI-R scale as the criterion (see hypotheses). No effect of gender was observed for any of the PPI-R scales.

| Table 1 |
| Descriptive statistics (means and standard deviations), internal consistency values, and inter-correlations (Pearson r) among TriPM total and subscale scores in community participants (N = 286). |

<table>
<thead>
<tr>
<th>Males</th>
<th>Females</th>
<th>Analysis of variance outcome</th>
<th>Total sample</th>
<th>Cronbach’s α</th>
<th>AIC 2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. TriPM-Boldness</td>
<td>50.7 (7.1)</td>
<td>46.0 (7.7)</td>
<td>F[1,286] = 26.4*</td>
<td>47.8 (7.8)</td>
<td>.83</td>
<td>.41</td>
<td>-.14</td>
</tr>
<tr>
<td>2. TriPM-Disinhibition</td>
<td>36.5 (7.4)</td>
<td>35.4 (6.3)</td>
<td>F[1,286] = 1.7</td>
<td>35.9 (6.8)</td>
<td>.80</td>
<td>.36</td>
<td>.54** .64**</td>
</tr>
<tr>
<td>3. TriPM-Meanness</td>
<td>36.0 (7.1)</td>
<td>31.0 (6.1)</td>
<td>F[1,286] = 41.3**</td>
<td>33.0 (7.0)</td>
<td>.82</td>
<td>.42</td>
<td>.84**</td>
</tr>
<tr>
<td>4. TriPM-Total</td>
<td>123.3 (13.4)</td>
<td>112.4 (13.6)</td>
<td>F[1,286] = 42.4*</td>
<td>116.7 (14.7)</td>
<td>.85</td>
<td>.27</td>
<td>-</td>
</tr>
</tbody>
</table>

NS = not significant; TriPM = Triarchic Psychopathy Measure; standard deviation presented in brackets; AIC = average inter-item correlations.

* p < .05.
** p < .001.
Table 2
Zero-Order correlations between TriPM Scales and the criterion variables.

<table>
<thead>
<tr>
<th>Internal Consistency (alpha)</th>
<th>Boldness</th>
<th>Disinhibition</th>
<th>Meanness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PPI-R</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.90</td>
<td>.60*</td>
<td>.38*</td>
</tr>
<tr>
<td>Fearless dominance factor</td>
<td>.90</td>
<td>.80*</td>
<td>-.03</td>
</tr>
<tr>
<td>Stress immunity</td>
<td>.85</td>
<td>.61*</td>
<td>-.30</td>
</tr>
<tr>
<td>Social influence</td>
<td>.86</td>
<td>.77*</td>
<td>-.08</td>
</tr>
<tr>
<td>Fearlessness</td>
<td>.86</td>
<td>.42*</td>
<td>.26*</td>
</tr>
<tr>
<td>Self-centered impulsivity factor</td>
<td>.86</td>
<td>.09</td>
<td>.64*</td>
</tr>
<tr>
<td>Rebellious nonconformity</td>
<td>.80</td>
<td>.31*</td>
<td>.33*</td>
</tr>
<tr>
<td>Blame externalization</td>
<td>.85</td>
<td>-.30*</td>
<td>.43*</td>
</tr>
<tr>
<td>Machiavellian egocentricity</td>
<td>.80</td>
<td>.24*</td>
<td>.44*</td>
</tr>
<tr>
<td>Carefree nonplanfulness</td>
<td>.78</td>
<td>-.04</td>
<td>.43*</td>
</tr>
<tr>
<td>Coldheartedness</td>
<td>.77</td>
<td>.31*</td>
<td>.05</td>
</tr>
<tr>
<td><strong>DASS-21</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DASS-21-anxiety</td>
<td>.80</td>
<td>-.18*</td>
<td>.27*</td>
</tr>
<tr>
<td>DASS-21-depression</td>
<td>.83</td>
<td>-.34*</td>
<td>.25*</td>
</tr>
<tr>
<td>DASS-21-stress</td>
<td>.86</td>
<td>-.16*</td>
<td>.25*</td>
</tr>
<tr>
<td>BHS</td>
<td>.77</td>
<td>-.40*</td>
<td>.30*</td>
</tr>
<tr>
<td><strong>NEO-FFI</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuroticism</td>
<td>.86</td>
<td>-.60*</td>
<td>.35*</td>
</tr>
<tr>
<td>Extraversion</td>
<td>.82</td>
<td>.52*</td>
<td>-.19*</td>
</tr>
<tr>
<td>Openness</td>
<td>.75</td>
<td>.21*</td>
<td>-.13</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>.70</td>
<td>-.15</td>
<td>-.31*</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.81</td>
<td>.16</td>
<td>-.44*</td>
</tr>
</tbody>
</table>

PPI-R = Psychopathic Personality Inventory-Revised; DASS-21 = Depression and Anxiety Scales 21 items; BHS = Beck Hopelessness Scale; NEO-FFI = NEO Five Factor Inventory.

* p < .004 (conservative alpha of .05/12 correlations).
+ p < .01 (conservative alpha of .05/4 correlations).
+ p < .01 (conservative alpha of .05/5 correlations).

3.2. Relations among TriPM and measures of anxiety, depression, stress and hopelessness

Bivariate associations (Table 2) as well as regression analyses (Table 3) showed that Boldness was negatively associated with all of these symptoms, whereas the opposite was true for Disinhibition. Meanness was not related to any of the measures of affective/emotional distress administered in the present study. There was evidence of divergent validity, since the magnitudes of associations between the TriPM, DASS-21, and BHS were lower than the PPI-R (Tables 2 and 3).

A hierarchical linear regression model showed that the associations for DASS-21 depression and stress were moderated by gender. Both Boldness and Disinhibition uniquely predicted DASS-21 depression scores in females (in opposing directions), whereas only Boldness inversely predicted depression scores in males. Likewise, Boldness and Disinhibition uniquely predicted DASS-21 stress scores in opposing directions in females, whereas in males there were no significant associations between scores on the TriPM and the DASS-21 stress scale.

3.3. Associations among TriPM and the FFM Domains

Bivariate correlations (Table 2) and regression analyses (Table 3) showed that Boldness was correlated mainly with Extraversion, and (negatively) with Neuroticism. Disinhibition was mainly related to Neuroticism and (negatively) with Conscientiousness. Lastly, Meanness exhibited negative associations mainly with Agreeableness. As indicated by large R² values from the regression analyses, the TriPM facets explained a substantial amount of variance in Extraversion, Neuroticism and Agreeableness scores.

Lastly, a series of hierarchical linear regression indicated that gender moderated the association between the TriPM and Agreeableness. Specifically, only Meanness uniquely predicted...
low Agreeableness in females, whereas in males both Boldness and Meanness inversely predicted variance in this dimension.

4. Discussion and conclusions

The internal consistency values of the TriPM scales and total score were optimal and in line with those reported in previous studies (e.g., Stanley, Wygant, & Sellbom, 2013) and in other foreign validations of the questionnaire (e.g., Poy et al., 2014). Inter-correlations among scales further demonstrated that the three dimensions converge in a common construct (i.e., psychopathy) but are also clearly distinct from each other, which is consistent with the conceptual development of the questionnaire.

Within the current study sample, scores on TriPM Disinhibition were most strongly associated with indices of impulsivity, irresponsibility, antisocial behavior, and neuroticism, which are among the prominent features of psychopathy. For instance, one of the first theories of psychopathy emphasized the presence of behavioral deviance and antisocial behavior (Cleckley, 1976); moreover, factor analysis of the PCL-R (Hare, 2003) – the most widely used measure to assess psychopathy in forensic and correctional settings – revealed that a central component of this measure was antisocial behavior and impulsivity (embodied in PCL-R Factor 2). Also, conceptions of psychopathy in terms of the Five Factor Model emphasize the presence of hostility as well impulsivity, two facets from the broad Neuroticism domain (e.g., Lynam & Miller, in press).

Interestingly, the link between TriPM Disinhibition and internalizing symptoms such as depression and stress was evident only for females, demonstrating that disinhibition in men may be less associated with internalizing problems, as shown by some authors (e.g., Lynam, in press). Nevertheless, other research has demonstrated a positive association between TriPM Disinhibition and suicidal ideation among both men and women (Venables et al., in press).

TriPM Boldness was positively associated with indices of adaptive function (stress immunity, social influence, lack of emotional instability) but also with psychological maladjustment, including specific features of impulsive-antisociality and low Agreeableness in male participants. In fact in previous research, fearlessness and dominance were associated with at least some forms of mal-adaptive behavior (Hicks, Iacono, & McGue, 2014; Sellbom & Phillips, 2013). Indeed, in “The Mask of Sanity”, Cleckley (1976) described psychopaths as individuals characterized by appearance of robust mental health that masks a serious emotional disturbance characterized by egocentrism and irresponsibility.

Scores on TriPM Meanness were most strongly associated with scales indexing callous affect, Machiavellianism and a general sense of alienation. This is consistent with McCord and McCord’s (1964) conceptualization, which described psychopaths as cold individuals lacking in conscience, with underlying features of social detachment and dangerousness. According to some authors, antagonism is in fact central to defining psychopathy (Lynam, in press).

Despite some overlapping associations, evidence also emerged for meanness and disinhibition as distinguishable constructs. This is notable, given that Section III of DSM-5 (APA, 2013) now includes traits specified within the separable domains of Antagonism and Disinhibition for diagnosing Antisocial Personality Disorder (along with a psychopathy specifier that reflects boldness; Strickland, Drislane, Megan, Krueger, & Patrick, 2013).

Regarding the relationships with demographic variables, TriPM Disinhibition and Meanness, which are most commonly associated with social deviance, were found to be weakly and inversely correlated with age, replicating a common finding in the literature (e.g. Huchzermeier et al., 2008; Olver & Wong, in press). Our results also indicated a very modest inverse association between TriPM Disinhibition and education, whereas the few studies which have specifically evaluated the association between psychopathy and education have generally reported negligible associations (Lilienfeld & Widows, 2005; Loeb, Pardini, Stouthamer-Loeb, & Raine, 2007; Vachon, Lynam, Loeb, & Stouthamer-Loeb, 2012).

In the current study males exhibited higher scores than females on boldness and meanness but not on disinhibition, partially replicating previous research on samples of students (Drislane et al., 2014; Poy et al., 2014; Sellbom & Phillips, 2013). The null finding for disinhibition in the present sample may reflect differences in how disinhibition is manifested in men and women (e.g., in terms of greater stress reactivity versus impulsivity and irresponsibility in female than male participants). Alternatively, comparable mean-level disinhibition scores may be due to sample characteristics (adult members of the community older on average than college students).

Lastly, even though gender was found to moderate a few patterns of correlations among the TriPM and criterion measures, overall our findings suggest highly comparable patterns of associations between scores on the Italian TriPM and measures of psychopathy, personality, and psychopathology for men and women (e.g., Marion et al., 2013; Poy et al., 2014).

There are several limitations to this study that need to be acknowledged. First, participants consisted of a somewhat homogenous sample of adults from the community rather than offenders or clinical patients. For these reasons, follow-up research is needed to evaluate the generalizability of findings to clinical or community samples. In particular, studies using prisoners, now underway in Italy, will be valuable for establishing the generalizability and clinical utility of the current findings. Nevertheless, we believe it was appropriate to utilize a community sample for the present study, as the aim was characterize continuous score relations of the facet scales of the TriPM with relevant criterion measures, not to classify participants as psychopathic or non-psychopathic.

Also, for pragmatic reasons, this study used only self-report measures. Strict reliance on self-report measures can artificially inflate associations between measures due to shared method variance. Nevertheless, the findings reported here are important given the dearth of information about the Italian translation of the TriPM.

In sum, the current findings support good convergence and divergence among Triarchic domains in relation to different descriptors of psychopathy, internalizing symptoms, and broad personality factors in an Italian community sample, consonant with previous recent studies both on normal as well incarcerated samples (Stanley et al., 2013).

References


Bottesi, G., Ghisi, M., Attoè, G., Conforti, E., Meli, G., & Sica, C. The Italian version of the depression anxiety stress scales-21: Factor structure and psychometric
properties on community and clinical samples [Manuscript submitted for publication].


