# Supplement

**Procedures for Scale Construction and Refinement**

Five raters (one M.S.-level, four Ph.D.-level) were provided with descriptions of the three triarchic constructs (boldness, meanness, and disinhibition; Patrick et al., 2009) and rated each SNAP-Fitem for its relevance to each construct in terms of five options: unrelated, strongly represents high levels of the construct, somewhat represents high levels, somewhat represents low levels, and strongly represents low levels of the construct. Items selected as strongly representing high or low levels of a construct by at least four of the five raters were selected as initial candidate items. Items that represented *low* levels of a construct were reverse scored. The number of initial candidate items for each scale was: 19 for Boldness, 25 for Meanness, and 58 for Disinhibition.

Refinement of the scales was then performed by the third and sixth author, through internal item analyses using data for the self-report (i.e., questionnaire) form of the SNAP-Fthat participants completed at baseline assessment. Specifically, scale refinement was based on examination of adjusted item-total correlations within each SNAP-F-Tri scale and cross-correlations of items with other SNAP-F-Tri scales. Candidate items demonstrating weak correlations with other items in the scale, such that deletion of the item improved internal consistency, were removed from the scale. Items were also removed if their deletion reduced cross-correlations for that scale with the other SNAP-F-Tri scales. After removal of such items, items that had been rated as strongly reflecting high or low levels of a construct by at least three of the five raters and as somewhat reflecting high or low levels of the construct by the remaining two raters were considered for inclusion in the scale. Items were added in only if they showed higher correlations with the target scale than with the other SNAP-F-Tri scales and if they contributed to higher internal consistency of the scale.

The items retained through this refinement process were used for both the self-report and the informant-rating versions of the SNAP-F-Triscales.

**Augmented Self-Report Boldness Scale**

To address the limitations of the SNAP-F-based Boldness scale, which contains only 5 items, 10 supplemental items from the 32-item PPI and the SCL-90 measures used in the current work were added to provide better overall representation of the boldness construct. Our purpose in creating this augmented Boldness scale was to improve the scale’s ability to predict clinical criterion measures available for the current sample at later points following the Time 1 assessment (e.g., institutional adjustment, disciplinary infractions, treatment compliance, therapeutic change). Items from the PPI-32 providing coverage of persuasiveness, venturesomeness, and tolerance for danger were taken from its Machiavellian Egocentricity and Fearlessness scales (original PPI item numberings = 26, 34, 129, & 154), and items of the SCL-90 tapping feelings of fear, social discomfort, avoidance of danger, and lack of confidence were taken from its Anxiety, Agoraphobia, Depression, and Interpersonal Sensitivity subscales (SCL-90 item numberings = 23, 41, 50, 72, 73, & 79). Criteria for selecting additional items from the PPI-32 and SCL-90 were identical to those used to select items from the SNAP-F, as described above (i.e., consensus ratings of construct relevance and empirical convergence with other scale items). Given that the PPI-32 and SCL-90 scales were self-report based, the augmented Boldness scale was constructed only for the self-report Boldness scale, not for the informant version of the scale.

The internal consistency coefficient for the augmented, 15-item self-report Boldness scale was higher, α = .74. However, the AIC for this scale was .16, which falls in the lower end of the acceptable range, meaning that the scale is more heterogeneous compared to the other scales. Correlations for the augmented self-report Boldness scale with the self-report Disinhibition and Meanness scales were .18 and .11, *p’*s > .07. Bivariate *r*s and regression βs for the augmented, 15-item self-report Boldness scale (AugBoldness) with self-report and clinician-rated criterion measures are shown, respectively, in Tables 3a and 4a below. As noted above, selected items from two of the PPI-32 scales and four of the SCL-90 scales were incorporated into the augmented Boldness scale. Table 3a therefore shows correlations for adjusted versions of these particular PPI-32 and SCL-90 scales, excluding items added to the Boldness scale; coefficient alphas for these adjusted scales ranged from .47 to .90 (median = .78), and *r*s with their unadjusted counterparts ranged from .88 to 1.0 rounded (median = .99). In both Tables 3a and 4a, bivariate *r*s are shown only for the AugBoldness scale because *r*s for the SNAPT-F-Tri-Meanness and Disinhibition scales appear in corresponding tables (i.e., 3 and 4, respectively) of the main article. Regression coefficients (β’s) reflect predictive coefficients for the three scales (AugBoldness, Meanness, and Disinhibition) when entered together in regression models predicting each of the criterion measures.

The major difference in results for this augmented scale compared with the 5-item SNAP-F-only Boldness scale was that negative associations with overall scores on the SCL-90 and some of its subscales (i.e., Depression, Paranoid Ideation, and Insufficient Thought/Action) increased to significant levels, particularly in regression models that included SNAP-FDisinhibition and Meanness scales as concurrent predictors (β’s = -.21 to -.25, *p’*s < .05; see Table 3a). In addition, this augmented Boldness scale showed a higher positive correlation with overall PCL-R psychopathy scores than the SNAP-F-only version (*r* = .20, *p* < .05; Table 4a), but contrary to expectation, this was due to an increase in its association with PCL-R Factor 2 rather than with Factor 1 (likely due to the addition of 3 items from the PPI-32 Fearlessness scale). However, in line with expectation, the augmented Boldness showed an enhanced association with features of narcissistic personality disorder (*r* = .22, β = .23, *p* < .05; Table 4a). Zero-order and regression relationships with other criterion measures apart from these were consistent in terms of magnitude and significance with those for the 5-item SNAP-F Boldness scale.

In contrast to the 5-tem Boldness scale reported in the manuscript, which showed no associations with the SCL-90, expected *negative* relations with SCL-90 depressive symptoms, as well as with paranoid and thought-disorder symptomatology, were found for the augmented Boldness scale. An important constraint on interpretation of findings for these criterion variables is that items from certain subscales of the SCL-90 were included in the augmented Boldness scale; though these items were excluded when computing criterion-variable scores, observed correlations could nonetheless be inflated. However, our purpose in creating this augmented scale was to enhance our ability to detect theory-relevant associations with other types of clinical outcomes measure beyond those available from the Time 1 assessment. In this respect, the current findings support the potential of this augmented self-report Boldness to predict outcomes such as institutional adjustment and resilience more effectively than the 5-item SNAP-F-only scale. Additionally, this augmented Boldness scale showed significant positive associations with non-questionnaire criteria available at Time 1 including overall PCL-R psychopathy scores and SIDP-IV narcissistic personality symptoms.

In sum, although the focus of the current report is primarily on the SNAP-F-only scales, which allow for direct comparison of results across assessment modalities, the augmented Boldness scale holds potential for use in further work with the current dataset directed at examining prospective prediction of clinical outcomes.

Table 3a. *Correlations of Augmented Boldness Scale and other Self-Report SNAP-F-Triarchic Scales with Adjusted PPI-32 and SCL-90 Scores*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **SNAP-Tri Scale** | | | |
|  | AugBoldness  *r* (β) | Meanness  (β) | Disinhibition  (β) |  |
| **Adjusted PPI-32 (**– **AugBoldness items)** |  |  |  |  |
| Total score | **.42 (.30)** | **(.20)** | **(.52)** |  |
| Social Potency | **.30 (.23)** | (.14) | **(.27)** |  |
| Fearlessness | **.37 (.30)** | (.07) | **(.32)** |  |
| Machiavellian Egocentricity | **.38 (.28)** | **(.26)** | **(.39)** |  |
| Rebellious Nonconformity | **.42 (.33)** | (.17) | **(.33)** |  |
| Carefree Nonplanfulness | .15 (.03) | (-.08) | **(.71)** |  |
| Blame Externalization | -.09 (-.15) | (.02) | **(.32)** |  |
| **Adjusted SCL-90 (**– **AugBoldness items)** |  |  |  |  |
| Total score | -.10 **(-.21)** | (-.12) | **(.55)** |  |
| Anxiety | -.08 (-.16) | (-.12) | **(.51)** |  |
| Agoraphobia | -.09 (-.14) | (-.11) | **(.30)** |  |
| Depression | -.19 **(-.25)** | (-.05) | **(.34)** |  |
| Sleep Problems | .00 (-.06) | (.02) | **(.33)** |  |
| Somatization | -.02 (-.07) | (-.12) | **(.33)** |  |
| Hostility | .15 (.04) | (.18) | **(.47)** |  |
| Paranoid Idea. & Interp. Sens. | -.16 **(-.25)** | (-.15) | **(.55)** |  |
| Insufficient Thought & Action | -.14 **(-.22)** | (-.07) | **(.45)** |  |

*Note.* PPI-32 = Psychopathic Personality Inventory – 32-item version; SCL-90 = Symptom-Checklist–90. Paranoid Idea. & Interpers. Sens. = Paranoid Ideation and Interpersonal Sensitivity. Not all participants completed all measures due to the nature of the sample. Bold font denotes correlation and regression coefficients (*r*/β) that are significant at *p* <.05.

Table 4a. *Correlations of Augmented Boldness Scale and other Self-Report SNAP-F-Triarchic Scales with PCL-R, SIDP-IV, HCR-20, and START Scales*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **SNAP-Tri Scale** | | | |
|  | AugBoldness  *r* (β) | Meanness  (β) | Disinhibition  (β) |  |
| PCL-R |  |  |  |  |
| Total | **.20** (.14) | (.11) | (.**28**) |  |
| Factor 1 | .08 (.06) | (.07) | (.12) |  |
| Interpersonal | .10 (.08) | (.03) | (.12) |  |
| Affective | .04 (.01) | (.10) | (.08) |  |
| Factor 2 | **.21** (.13) | (.07) | **(.38)** |  |
| Impulsive | .19 (.12) | (.05) | (.**38**) |  |
| Antisocial | .18 (.12) | (.07) | (.**30**) |  |
| SIDP-IV |  |  |  |  |
| APD | .14 (.08) | (.08) | (**.27**) |  |
| BPD | .02 (-.02) | (-.12) | (.**36**) |  |
| NPD | **.22 (.23**) | (-.00) | (.08) |  |
| PPD | .12 (.08) | (.19) | (.08) |  |
| HCR-20 |  |  |  |  |
| Total score | .07 (.01) | (.12) | **(.26)** |  |
| Historical scale | .12 (.07) | (.10) | (.22) |  |
| Clinical scale | .05 (.00) | (.07) | **(.25)** |  |
| Risk scale | -.05 (-.08) | (.08) | (.11) |  |
| START |  |  |  |  |
| Strengths | -.05 (.02) | (-.00) | **(-.38)** |  |
| Vulnerabilities | .04 (-.01) | (-.05) | **(.28)** |  |
| Quantitative risk est. | .03 (-.02) | (.01) | **(.29)** |  |

*Note.* PCL-R = Psychopathy Checklist Revised; SIDP-IV = Structured Interview for DSM-IV Personality Disorders. Results shown here are for symptom counts or scores for the following: ASPD = Antisocial Personality Disorder; BPD = Borderline Personality Disorder; NPD = Narcissistic Personality Disorder; PPD = Paranoid Personality Disorder; HCR-20 = Historical, Clinical and Risk management scheme; START = Short-Term Assessment of Risk and Treatability. Bold font denotes correlation and regression coefficients (*r*/β) that are significant at *p* < .05