Delineating the Construct Network of the Personnel Reaction Blank: Associations With Externalizing Tendencies and Normal Personality

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Integrity testing has long been utilized in personnel selection to screen for tendencies toward counter-productive workplace behaviors. The construct of externalizing from the psychopathology literature represents a coherent spectrum marked by disinhibitory traits and behaviors. The present study drew on a sample of male and female undergraduates to examine the construct network of the Personnel Reaction Blank (PRB; H. G. Gough, R. D. Arvey, & P. Bradley, 2004), a measure of integrity, in relation to externalizing as well as normal-range personality constructs assessed by the Multidimensional Personality Questionnaire (MPQ; A. Tellegen & N. G. Waller, 2008). Results revealed moderate to strong associations between several PRB scales and externalizing, which were largely accounted for by MPQ traits subsumed by Negative Emotionality and Constraint. After accounting for MPQ traits in the prediction of externalizing, a modest predictive increment was achieved when adding the PRB scales, particularly biographical indicators from the Prosocial Background subscale. The findings highlight externalizing as a focal criterion for scale development in the integrity testing literature and help delineate the construct network of the PRB within the domains of personality and psychopathology.

Keywords: Personnel Reaction Blank, Multidimensional Personality Questionnaire, integrity testing, externalizing, personality

Employee dishonesty exacts a considerable toll in the American workplace. For example, recent estimates suggest that employee theft alone may account for as much as $40 billion annually in business losses (U.S. Chamber of Commerce, 2004) and contribute significantly to 20% of failed businesses (Coffin, 2003). The problem may be even greater, considering that such figures do not include the adverse impact from more subtle forms of counterproductivity and employee deviance (e.g., tardiness, work absenteeism). Preemployment integrity tests are a popular frontline strategy to address these issues and are intended to screen out applicants likely to engage in counterproductive workplace behaviors.

The construct of externalizing, developed in the child and adult psychopathology literatures (Achenbach & Edelbrock, 1978, 1984; Krueger et al., 2002; Krueger, Markon, Patrick, Benning, & Kramer, 2007), represents a coherent spectrum marked by tendencies toward disinhibitory traits (e.g., impulsivity) and behaviors (e.g., substance abuse, antisociality; Gorenstein & Newman, 1980; Sher & Trull, 1994). Although derived from the domains of personality and psychopathology, externalizing appears to be a criterion of substantial interest to the field of personnel selection. Despite clear conceptual overlap, few studies have explicitly investigated the relationship between the externalizing spectrum and integrity testing. The present study addressed this gap in the literature by exploring the construct network of a well-validated measure of integrity—the Personnel Reaction Blank (PRB; Gough et al., 2004)—in relation to externalizing and the structure of

normal-range personality as operationalized by the Multidimensional Personality Questionnaire (MPQ; Tellegen & Waller, 2008).

Integrity Testing: Historical Background and Development of the Personnel Reaction Blank

Since their inception into the field of psychological assessment, preemployment integrity tests have been a popular means of addressing issues of employee theft and dishonesty. In the wake of the Employee Polygraph Protection Act of 1988, paper-and-pencil integrity tests have become the most frequently used assessment tools in personnel selection and preemployment screening (for a review, see Iacono & Patrick, 2008). Such measures are intended to assess the likelihood that a given individual will behave in a responsible and reliable manner in the workplace, and not engage in counterproductivity, defined as intentional behaviors that may threaten the well-being of an organization (e.g., theft, destruction of property, misuse of information or company resources, poor attendance, on-the-job substance use, inappropriate verbal and physical actions toward coworkers; Sackett & DeVore, 2001).

Integrity tests may be divided into two classes based on their item content (Sackett, Burris, & Callahan, 1989; Woolley & Hakstian, 1992). *Overt* (clear purpose) integrity tests consist of fairly transparent items that directly ask about attitudes toward dishonesty as well as the severity and frequency of theft and other illegal activities in the applicant's past. The Reid Report (Reid, 1967) is an example of an overt integrity test. In contrast, *personality-based* (veiled purpose) integrity tests assess a broader set of issues regarding an individual's upbringing, self-management skills, and reactions to others and use more subtle questions related to attitudes, self-perceptions, and dispositional tendencies associated with counterproductivity in general rather than dishonesty or theft per se.

The PRB is regarded as one of the first paper-and-pencil integrity tests (Viswesvaran & Ones, 1997) and remains one of the most commonly used personality-based measures of integrity (Gough et al., 2004). The PRB was designed to assess an individual's ability to resist "wayward impulses" (Gough, 1971), with high scores suggesting tendencies toward conformity, dependability, and rule compliance and low scores being indicative of rule breaking, rebelliousness, and irresponsibility. Large-scale meta-analyses of the PRB and related personality-based integrity tests have established the criterion validity of these measures in predicting job performance ratings and a host of counterproductive workplace behaviors (e.g., theft, violence, property damage, substance abuse, work absenteeism; Ones, Viswesvaran, & Schmidt, 1993; Ones, Viswesvaran, Schmidt, & Schultz, 1992; Schmidt, Viswesvaran, & Ones, 1997).

Although regarded as a personality-based inventory, the PRB is not limited to the assessment of an individual's current personality dispositions. The original item set was assembled with a criterion-referenced approach in which items were selected if they discriminated between individuals with and without a history of delinquency (Gough & Peterson, 1952; Gough et al., 2004; Kobbs & Arvey, 1993). Interestingly, many of these items, which have been retained in subsequent versions of the PRB, are biographical in nature and reflect patterns of deviant behavior in childhood (e.g., gave teachers trouble, disobeyed parents). Thus, the PRB appears to capture both self-reported current personality dispositions as

well as biographical information, consistent with idea that broad domains of personality can be tapped by distinct types of data (Block, 1993; Cattell, 1965; Funder, 2001; Tellegen & Waller, 2008).

Integrity Testing: Associations Within the Domain of Personality

Past efforts to delineate the construct network of integrity measures within the domain of personality have focused on self-report assessments of current dispositional tendencies as described by structural models of normal personality. The vast majority of this research has focused on the five-factor model (Costa & McCrae, 1992), which consists of broad dimensions of Extraversion (e.g., sociability, agency), Emotional Stability/Neuroticism (e.g., imperturbability vs. anxiousness), Conscientiousness (e.g., dependability, adherence to social norms), Agreeableness (e.g., trustworthiness, concern for others), and Openness to Experience (e.g., creativity, intellectual curiosity). Although not focused specifically on integrity testing, several meta-analyses of relations between the five-factor model dimensions and work-related criteria found Conscientiousness (Barrick & Mount, 1991) and Agreeableness (Tett, Jackson, & Rothstein, 1991) to be the best trait-based predictors of job performance ratings—a criterion predicted well by integrity tests (Ones et al., 1993).

With respect to integrity tests per se, Conscientiousness ($r = .42$), Agreeableness ($r = .40$), and to a lesser extent Emotional Stability ($r = .33$) are the strongest trait correlates of integrity tests, including the PRB, with the combination of these factors predicting scores on these measures better than any of the factors alone. Hence, the PRB and measures of integrity appear to largely assess Conscientiousness and Agreeableness—dimensions that (negatively) form a higher order factor of Disinhibition in the structural framework of personality (Markon, Krueger, & Watson, 2005). An additional finding of Ones, Schmidt, and Viswesvaran (1994), as well as others (e.g., Barrick, Mount, & Judge, 2001; Marcus, Höft, & Riediger, 2006), is that the above-noted personality factors mediate the relationship between integrity tests and a range of external criteria, including indices of counterproductivity. However, Ones et al. (1994) also noted that these factors did not entirely account for the association between integrity test scores and external criteria, suggesting that other types of data beyond an individual's self-reported current dispositional make-up are measured by personality-based integrity tests and can predict counterproductivity.

The Externalizing Spectrum: Background, Measurement, and Conceptual Links to Integrity Testing

When considering the outcomes relevant to the objectives of integrity testing, externalizing is undoubtedly a criterion of substantial interest to the field of integrity testing. The notion of externalizing as a coherent spectrum and organizing framework for disinhibitory psychopathology was introduced in the work of Achenbach and Edelbrock (1978, 1984). In their model, conduct and behavioral problems in childhood (e.g., aggression, delinquent rule breaking) were conceptualized as indicators of a higher order externalizing vulnerability and differentiated from indicators of

emotional distress such as anxiety and depression—that is, internalizing.

Recently, Krueger et al. (2007) mapped the content domain and structure of the externalizing spectrum using an exploratory approach that began with an overinclusive item pool and proceeded in an iterative fashion in which constructs were allowed to evolve through multiple rounds of data collection. This process, which has been described as an essential component of test construction (Tellegen & Waller, 2008), resulted in a comprehensive inventory composed of 23 facet scales that encompass a range of deviant traits and behaviors (e.g., aggression, dishonesty, unreliability, irresponsibility, impulsivity, theft, substance abuse). Despite the multidimensional composition of this inventory, these lower order facet scales were successfully integrated into a hierarchical model, with differing facets representing alternative instantiations of a general externalizing factor.

Although derived from the psychopathology literature, externalizing represents a spectrum of psychopathology as well as personality such that individual differences within this spectrum are underpinned by disinhibitory traits described in structural models of personality (Krueger et al., 2002; Sher, Bartholow, & Wood, 2000; Slutske et al., 2002; Trull & Sher, 1994). For example, from the perspective of a five-factor model, externalizing is marked by low Agreeableness and low Conscientiousness (Lynam, Leukefeld, & Clayton, 2003; Miller, Lynam, & Leukefeld, 2003)—which, as noted above, are the most robust personality correlates of integrity tests (Ones et al., 1994). Similar findings have emerged from the three-factor model of personality operationalized by the MPQ, with externalizing being linked to high Negative Emotionality and low Constraint (Krueger, McGue, & Iacono, 2001). In relation to the five-factor model, scores on Negative Emotionality factor—i.e., Aggression and Alienation—are moderately correlated with scores on Agreeableness, and scores on the Constraint factor (the Control vs. Impulsivity scale, in particular) are robustly correlated with scores on Conscientiousness (Church, 1994; Tellegen & Waller, 2008). Given the overlap in the personality dimensions underlying both the externalizing spectrum and measures of integrity, we hypothesized that (a) integrity tests would be highly associated with externalizing, and (b) this association would be mediated by personality traits related to negative affect and disinhibition.

The Present Study

Despite clear conceptual links, the association between integrity tests and externalizing—as conceptualized in the psychopathology literature (Krueger et al., 2002, 2007)—has not been formally investigated. In the present study, we used a large sample of male and female undergraduates to examine the construct network of the PRB in relation to the externalizing spectrum of psychopathology and normal-range dimensions of personality. Our primary aims were to assess the magnitude of the relationship between the PRB and externalizing and to delineate the construct network of the PRB in relation to the MPQ—a well-validated structural model of normal personality (Patrick, Curtin, & Tellegen, 2002). Besides being the first study to directly relate scores on an established integrity test to the construct of externalizing, the current study is also the first (to our knowledge) to examine links between a personality-based measure of integrity and the MPQ, thereby al-

lowing for a comparison of correlates of integrity tests for the three-factor model of personality with previously reported results for the five-factor model of personality (see Lilienfeld, Andrews, Stone-Romero, & Stone, 1994, for a study with the MPQ and an overt integrity test). A further aim of the current study was to assess the extent to which the PRB scales can account for variance in externalizing over and above information related to one's current personality dispositions that may be shared across the MPQ and the PRB. On the basis of their conceptual overlap, as well as past research demonstrating links between integrity test scores and counterproductive workplace behaviors (e.g., theft, violence, drug abuse; Ones et al., 1993), we hypothesized that a strong association would be found between the PRB and externalizing, which would be substantially (but not entirely) mediated by MPQ scales of negative affect (i.e., Negative Emotionality) and disinhibition (i.e., Constraint).

Method

Participants

Participants were 770 undergraduate students (512 women) from an introductory psychology course at a large Midwestern university who completed study questionnaires electronically (i.e., online) for course credit. As part of an initial informed consent section, students were advised that the testing process was completely anonymous and would not adversely impact or benefit their course performance beyond the receipt of extra credit for participation. Students were instructed to complete the questionnaires on their own (i.e., without involvement of or assistance from others) and were explicitly informed that submitted results would be carefully reviewed for completion. In addition, students were given the option of attending an individualized feedback session to review their results; this provided further encouragement for participants to complete the questions in a valid manner. Mean age for the sample was 19.5 years ($SD = 2.31$). The racial composition was as follows: 82.7% Caucasian American, 11.7% Asian American, 2.6% other/mixed ethnicity, 1.7% African American, 0.9% Hispanic American, and 0.4% Native American.

Assessment

Integrity measure: Personnel Reaction Blank. The PRB (Gough, 1971; Gough et al., 2004) consists of 84 items related to attitudes and self-perceptions and is designed to assess the likelihood that a given individual will demonstrate reliability and dependability, as opposed to counterproductivity, in the workplace. Of the 84 items, 62 (41 personality-based items and 21 other items dealing with occupational preferences) are used for scoring the Personal Reliability Index, a global index on which lower scores indicate tendencies toward counterproductive workplace behaviors. Scores on the Personal Reliability Index are obtained by summing the raw scores from four subscales: Sense of Well-Being (16 items), on which high scores reflect a positive outlook on one's life circumstances; Prosocial Background (13 items), on which high scores reflect a view of one's childhood and upbringing as happy and satisfying; Compliance with Social Norms (12 items), reflecting, at the high end, a tendency to conform to and comply with social norms and conventions; and Conventional Occupa-

tional Preferences (21 items), an index of occupational preferences on which higher scores reflect a preference toward conventional, low-risk jobs and lower scores indicate a preference for jobs that are unconventional or involve some element of risk or physical danger. Past research has demonstrated satisfactory psychometric properties for all PRB scales (Gough et al., 2004). Complete PRB scores were available for 768 participants (511 women).

Externalizing Spectrum Inventory, 100-item version. This self-report inventory assesses a range of traits and behavioral tendencies that have been identified as indicators of the broad externalizing factor of psychopathology in previous work (Krueger et al., 2007). The 100-item version of the ESI used in the current study (ESI-100) consists of a subset of items from the full, 415-item ESI. This subset incorporates items from most of the ESI facet scales and provides for effective estimation of overall scores on the full ESI; within the ESI development sample (Krueger et al., 2007), total scores for the two versions correlate at $r = .98$ (Hall, Bernat, & Patrick, 2007). Notably, although the ESI-100 provides strong representation of items from scales that load very highly on the general factor (i.e., Irresponsibility, Problematic Impulsivity, Theft, Fraud, Physical Aggression, Alcohol Problems), it provides only weak representation (one to two items) of particular scales that serve as indicators of the Callous–Aggression (e.g., Empathy [reverse scored], Excitement Seeking, Rebelliousness, Honesty [reverse scored]) and Substance Use subfactors (i.e., Alcohol Use, Drug Use, Drug Problems, Marijuana Use, Marijuana Problems).[1] For this reason, the current study focused on overall scores on the ESI-100 (reflecting general proneness to externalizing), which were computed by summing across all items of the inventory. Scores on the ESI-100 demonstrate criterion-related validity in relation to diagnostic and personality indicators of externalizing (Hall et al., 2007) and in relation to relevant physiological indices such as P300 (Nelson, Patrick, & Bernat, 2010) and error-related negativity (Hall et al., 2007).

Personality. Participants completed the 155-item brief form (Patrick et al., 2002) of Tellegen's MPQ. This omnibus measure of normal personality assesses both higher and lower order levels of the trait hierarchy and was constructed with an iterative–exploratory approach (Tellegen & Waller, 2008) that served as a model for the development of the ESI. The MPQ comprises 11 primary trait scales, each consisting of 12 binary-response items; 10 of these 11 scales cohere around three higher order factors of Positive Emotionality, Negative Emotionality, and Constraint. Positive Emotionality encompasses primary traits of Well-Being, Social Potency, Achievement, and Social Closeness. Individuals scoring high on Positive Emotionality tend to have a cheerful disposition, value interpersonal relationships, be dominant and persuasive, and enjoy demanding projects. Negative Emotionality encompasses primary traits of Stress Reaction, Alienation, and Aggression, with high scorers tending to be antagonistic, sensitive to criticism, and inclined toward a range of negative emotions (e.g., stress, hostility, anger). Constraint encompasses primary traits of Control, Harm Avoidance, and Traditionalism. High scorers on this dimension are planful and cautious, averse to risk, and inclined toward conservative social values. The final primary trait scale, Absorption, which assesses capacities for vivid and compelling imagery and intense engagement in ongoing sensory-perceptual events, does not load selectively on Positive Emotionality, Negative Emotionality, or Constraint.

The brief version of the MPQ demonstrates close correspondence with the full MPQ both in terms of primary trait scale correlations across the two versions and consistency of higher order factor structures (Patrick et al., 2002). In addition, the brief form includes two validity scales—the Variable Response Inconsistency (VRIN) and True Response Inconsistency (TRIN) scales—for detecting inconsistent or random response patterns. Thirteen MPQ protocols (1.7% of the total sample) were deemed invalid according to the distributional cutoffs for these scales recommended by Patrick et al. (2002). Data for these 13 cases were excluded from all analyses, resulting in a final sample of 757 individuals (505 women) with valid MPQ data.

Data Analytic Approach

Using the statistical package *Mplus 4.1* (Muthén & Muthén, 1998–2006), we began analyses with an examination, by gender, of zero-order correlations among the PRB scales and the ESI-100, as well as first-order relations based on a regression model with ESI-100 scores as the criterion and scores on the PRB scales as predictors. The MPQ personality correlates of the PRB scales were also examined at both the zero- and first-order levels to ascertain the distinct personality constructs underlying each dimension of the PRB. Next, we undertook hierarchical regressions to assess the extent to which the PRB scales could predict scores on the ESI-100 after controlling for scores on the 11 primary scales of the MPQ. As a follow-up to these analyses, individual items from the PRB were included as predictors of scores on the ESI-100, after accounting for MPQ scores, to evaluate which PRB items contributed incrementally to prediction of externalizing tendencies, beyond information pertaining to participants' current dispositions. To assess for gender differences, likelihood ratio tests were computed to compare the chi-square fit of models that constrained parameter estimates for men and women to be equal against models in which these parameters were freely estimated. Coefficients significant at $p < .05$ are noted in all tables; however, in consideration of the large number of correlations that were computed, interpretation of results is limited to coefficients significant at a more conservative level of $p < .01$.

Results

Internal Consistencies and Descriptive Statistics

Internal consistency reliabilities (Cronbach's alpha) and descriptive statistics (means, standard deviations) for all sample

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[1] The item content of the ESI-100 was not adequate for estimating scores on either of the ESI subfactors (Substance Use, Callous–Aggression) identified by Krueger et al. (2007). In the ESI-100, only two of the six scale indicators of the Substance Use subfactor (Alcohol Problems, Drug Use) are represented by more than two items (i.e., eight and three items, respectively), and one of these two scale indicators—Alcohol Problems—is the weakest among the six in terms of its loading (.24) on the Substance Use subfactor. With regard to the Callous–Aggression subfactor, two of the four scales that load most strongly on this subfactor (Empathy [negatively], Excitement Seeking) are represented by fewer than three items (i.e., Items 2 and 1, respectively).

measures are presented in Table 1.[2] To facilitate interpretation of gender differences, means and standard deviations are presented in T-score units (relative to the sample as a whole) along with standardized (absolute) mean differences (i.e., d scores). Internal consistency estimates were satisfactory (i.e., >.7) for scores across all measures with the exception of the Conventional Occupational Preferences subscale of the PRB. Although scores on this scale demonstrated satisfactory internal consistency in the normative sample (α = .73; Gough et al., 2004), it is not an inherently homogenous personality-based index and instead captures a range of constructs that influence conventional occupational interests.

With regard to gender differences in integrity as indexed by the PRB, men scored significantly higher than women on the Sense of Well-Being subscale, whereas women scored significantly higher on the Compliance with Social Norms and Conventional Occupational Preferences subscales, as well as on the global Personal Reliability Index. With regard to gender differences in personality as indexed by the MPQ, women scored significantly higher than men on the primary scales of Social Closeness, Stress Reaction, Control, and Harm Avoidance and on the higher order factor of Constraint. Men scored significantly higher than women on the Aggression scale of the MPQ and on the ESI-100.

Intercorrelations Among Personnel Reaction Blank Scales and Zero- and First-Order Relations With Externalizing

Table 2 lists intercorrelations, computed separately by gender, among the PRB scales. In both gender subgroups, each of the PRB subscales was highly related to the global Personal Reliability Index, with Pearson product–moment correlations ranging from .52 (Conventional Occupational Preferences) to .73 (Sense of Well-Being), and the subscales of Sense of Well-Being, Prosocial Background, and Compliance with Social Norms showed moderate correlations with one another (range of rs = .31–.49). The Conventional Occupational Preferences subscale was relatively uncorrelated with the other PRB subscales, with the exception of a small, positive correlation with Compliance with Social Norms in women. Among these intercorrelations, only the relationship between Prosocial Background and Compliance with Social Norms differed significantly across gender, $\Delta\chi^2(1)$ = 5.68, p = .02, with the magnitude of association larger for men.

Table 2 also shows zero- and first-order correlations between the PRB scales and the ESI-100. At the zero-order level, ESI-100 scores exhibited a large, negative correlation with global Personal Reliability Index scores that was equivalent across gender. With respect to the PRB subscales, scores on the ESI-100 evinced high negative correlations with Prosocial Background and Compliance With Social Norms and a moderate negative association with Sense of Well-Being. The correlation with ESI-100 scores for the Conventional Occupational Preferences subscale was weakly negative and significant for women only. For Prosocial Background and Compliance with Social Norms, the associations with the ESI-100 were significantly larger for men than for women, $\Delta\chi^2$s(1) = 7.33 and 5.84, respectively, ps < .01. To assess the unique relations between the PRB and the ESI-100, we included the PRB subscales concurrently in a regression model as predictors of the ESI-100 criterion variable. Across men and women, Proso-

cial Background and Compliance With Social Norms remained negatively associated with scores on the ESI-100, with the association for Prosocial Background significantly larger for men than for women, $\Delta\chi^2(1)$ = 5.14, p < .05. For Sense of Well-Being, the association with the ESI-100 was significant and slightly more negative in women. Although this association was not significant in our smaller sample of men, constraining these estimates to be equal across gender did not result in a significant decrease in fit. The first-order associations between Conventional Occupational Preferences and ESI-100 were quite low for both women and men, although they were significant in the large female subsample.

Multidimensional Personality Questionnaire Personality Correlates of the Personnel Reaction Blank Scales

In accordance with its reputation as a personality-based integrity measure, we examined zero-order correlations of individual scales from the PRB with the MPQ (see Table 3). For the sake of brevity, these correlations are presented for the overall sample, with significant gender differences noted in the text below. In addition, given the significant intercorrelations among MPQ primary scales per their higher order structure (Patrick et al., 2002; Tellegen & Waller, 2008), we also computed first-order coefficients from regression analyses in which the 11 MPQ primary scales were included together as predictors of scores on each of the PRB scales. This approach provided for an evaluation of the distinctive trait correlates of the PRB scales. The resulting first-order (beta) coefficients are shown in parentheses to the right of the zero-order correlations in Table 3. The MPQ higher order factors were not included in the regression analyses, given the redundancy of these factors with the primary scales they subsume. Thus, only zero-order correlations between the PRB scales and MPQ factors are presented in Table 3.

In personality space, the global Personal Reliability Index is represented most strongly by low scores on Alienation. At the higher order level of the MPQ, the Personal Reliability Index showed a large negative correlation with Negative Emotionality and moderate positive correlations with Positive Emotionality and Constraint. Sense of Well-Being was uniquely related to low Stress Reaction and Alienation and high Well-Being and Social Potency. The first-order relations between Sense of Well-Being and the MPQ Well-Being scale were significantly larger in men (β = .38, p < .001) than in women (β = .22, p < .001). With respect to the MPQ factors, Sense of Well-Being showed a large negative correlation with Negative Emotionality, a moderate positive correlation with Positive Emotionality, and a negligible correlation with Constraint. Prosocial Background was characterized by a negative association with Alienation; positive associations with Well-Being, Control, and Traditionalism; and a small negative association with Absorption. At the higher order level, Prosocial Back-

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[2] Consistent with the approach of Patrick et al. (2002), scores on the MPQ higher order factors of Positive Emotionality, Negative Emotionality, and Constraint were computed with beta coefficients derived from regression analyses in which each of the MPQ primary scales (with the exception of Absorption) was used to predict scores on the higher order factors. Consequently, internal consistency estimates could not be computed for scores on the MPQ factors.

Table 1

Internal Consistencies and Descriptive Statistics for Sample Measures in Men and Women

		Men		Women			
Measure	α	M	SD	M	SD	d	F
PRB							
Personal Reliability Index	.95	48.6	10.3	50.7	9.8	.21	7.10*
Sense of Well-Being	.97	51.5	9.8	49.2	10.0	.23	8.59*
Prosocial Background	.93	49.0	10.4	50.5	9.8	.14	3.45
Compliance with Social Norms	.87	47.9	10.6	51.0	9.5	.31	16.50**
Conventional Occupational Preferences	.69	47.6	10.5	51.2	9.5	.36	21.71**
MPQ primary scales							
Well-Being	.83	50.2	9.7	49.9	10.2	.02	0.11
Social Potency	.76	50.9	9.0	49.5	10.4	.14	3.44
Achievement	.75	49.8	10.2	50.1	9.9	.03	0.13
Social Closeness	.80	48.6	10.2	50.7	9.8	.21	7.32*
Stress Reaction	.81	47.6	9.7	51.2	9.9	.37	22.11**
Alienation	.78	50.1	10.2	49.9	9.9	.02	0.05
Aggression	.77	53.4	10.5	48.3	9.3	.52	45.35**
Control	.72	48.5	10.4	50.8	9.7	.23	9.03*
Harm Avoidance	.71	45.9	10.3	52.1	9.2	.65	70.50**
Traditionalism	.71	49.6	10.2	50.2	9.9	.05	0.48
Absorption	.74	50.7	9.5	49.6	10.2	.11	2.02
MPQ factors							
Positive Emotionality		49.8	9.9	50.1	10.1	.03	0.16
Negative Emotionality		50.3	10.2	49.9	9.9	.04	0.27
Constraint		47.0	10.6	51.5	9.4	.46	35.66**
ESI-100	.95	53.5	10.8	48.2	9.1	.54	49.89**

Note. N_{total} = 756–757; N_{men} = 252; N_{women} = 504–505. Degrees of freedom for the F tests were (1, 755) or (1, 756). PRB = Personnel Reaction Blank; MPQ = Multidimensional Personality Questionnaire; ESI-100 = Externalizing Spectrum Inventory, 100-item screening version. All means and standard deviations are presented in a T-score metric computed over the total sample. d = standardized (absolute) mean differences between men and women.
* $p < .01$. ** $p < .001$.

ground showed a large negative correlation with Negative Emotionality and moderate positive correlations with Positive Emotionality and Constraint. Compliance with Social Norms was uniquely associated with high scores on all primary scales of Constraint, particularly Control, as well as low scores on Aggression and Stress Reaction. This was also evident at the higher order level, as indicated by a large positive correlation with Constraint, a moderate negative correlation with Negative Emotionality, and a negligible correlation with Positive Emotionality. Across the MPQ primary scales, the Conventional Occupational Preferences subscale was uniquely related only to Harm Avoidance, which was significant in women (β = .21, p < .001) but not men (β = −.01, ns). At the higher order level of the MPQ, Conventional Occupational Preferences exhibited a significant association (positive and of modest magnitude) with Constraint alone.

Hierarchical Regressions of Externalizing on the Multidimensional Personality Questionnaire and Personnel Reaction Blank Scales

Given that scores on the PRB are underpinned by a range of personality constructs, we performed a series of hierarchical regressions to assess whether scores on the PRB scales predicted scores on the ESI-100 after controlling for variance shared with the MPQ. For the sake of brevity, results are presented in Table 4 for the overall sample, with significant gender differences noted in the text below. In Step 1, ESI-100 scores were regressed onto the MPQ primary scales (entered together) to evaluate the unique

personality correlates of this externalizing criterion measure.[3] In Step 2, scores on the PRB scales were entered (individually) into the model to assess their unique predictive associations with ESI-100 scores above and beyond the personality constructs assessed by the MPQ.

At Step 1, scores on the ESI-100 were significantly predicted by scores on several of the MPQ primary scales, particularly high scores on the Negative Emotionality–related scales of Aggression and Alienation and low scores on the Control scale of Constraint. After inclusion of the MPQ primary scales, the global Personal Relationship Index, as well as each of the PRB subscales, provided a modest (albeit significant) increment in the prediction of scores on the ESI-100, with the Prosocial Background subscale exhibiting the strongest incremental prediction of the criterion variable. Prosocial Background scores were more highly predictive of scores on the ESI-100 criterion variable in men (β = −.34, p <

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[3] Per Grucza and Goldberg (2007) as well as others (e.g., Paunonen & Ashton, 2001), large sets of lower level personality constructs such as MPQ primary scales tend to be more valid and account for more variance in the prediction of behavioral acts than a few higher level personality factors. Thus, we chose to use the primary scales in Step 1 of these analyses to provide a more stringent test of the degree to which the PRB scales provide any incremental prediction of externalizing tendencies beyond information related to current dispositional tendencies as measured by the MPQ. For information on relations between the MPQ higher order factors and the ESI-100 in a comparable sample of undergraduates, see Hall et al. (2007).

Table 2

Intercorrelations Among Personnel Reaction Blank Scales and Zero- and First-Order Relations With Externalizing

Scale	Personal Reliability Index	Sense of Well-Being	Prosocial Background	Compliance with Social Norms	Conventional Occupational Preferences	ESI-100
Personal Reliability Index	—	.73**	.69**	.61**	.52**	−.56**
Sense of Well-Being	.71**	—	.49**	.33**	−.01	−.42** (−.18**)
Prosocial Background	.67**	.47**	—	.33**	.03	−.48** (−.29**)
Compliance with Social Norms	.65**	.31**	.46**	—	.15**	−.48** (−.31**)
Conventional Occupational Preferences	.54**	.04	−.04	.12	—	−.13* (−.08†)
ESI-100	−.56**	−.36** (−.07)	−.60** (−.41**)	−.55** (−.33**)	−.06 (−.03)	—

Note. N_{men} = 252; N_{women} = 504–505; ESI-100 = Externalizing Spectrum Inventory, 100-item screening version. Correlations for men are presented below the diagonal; correlations for women are shown above the diagonal. Coefficients in parentheses are first-order betas reflecting the association between each Personnel Reaction Blank scale and the ESI-100 after controlling for shared variance with the other Personnel Reaction Blank scales.
† $p < .05$. * $p < .01$. ** $p < .001$.

.001) than in women (β = −.21, $p < .001$), as indicated by a significant decrement in fit for a model that constrained parameter estimates to be equal across gender compared with a model that allowed these parameters to be estimated freely across men and women, $\Delta\chi^2(1)$ = 8.41, $p < .01$. Both Sense of Well-Being and Compliance with Social Norms exhibited small, negative associations with the ESI-100 that were comparable in magnitude after controlling for the MPQ primary trait scales. The Conventional Occupational Preferences subscale exhibited a weak, negative association with the ESI-100 at Step 2 that was significant only at $p < .05$. With the exception of Prosocial Background, the parameter estimates for the PRB scales could be constrained to be equal across men and women without a significant decrease in fit.

Results of the hierarchical regressions indicate that each of the PRB scales is predictive of externalizing tendencies above and beyond information related to current dispositional tendencies as assessed by the MPQ. To further explore this relationship, we conducted follow-up analyses to identify which PRB items were uniquely associated with scores on the ESI-100 after accounting for scores on the MPQ primary scales (see Table 5). Of the 62 items used in the scoring of the PRB scales, 44 were significantly correlated with scores on the ESI-100 at the zero-order level ($p < .01$). Each of these items was then entered separately—along with scores on the MPQ primary scales—into a regression model as predictors of the ESI-100 criterion variable. Using a conservative p value of .01, we found that 14 items remained significant. The item numbers, general item content, and zero- and first-order associations with the ESI-100 are listed by PRB subscale in Table 5. Notably, half of the items, most of which were the highest loading items among the 14, were from the Prosocial Background subscale. These items were largely biographical in nature and reflected problematic behaviors at home or school during one's childhood rather than the attitudes and self-perceptions reflected in one's current dispositional tendencies. In addition, these items

Table 3

Zero- and First-Order Relations Between Personnel Reaction Blank Scales and Multidimensional Personality Questionnaire Primary Scales and Higher Order Factors

Variable	Personal Reliability Index	Sense of Well-Being	Prosocial Background	Compliance with Social Norms	Conventional Occupational Preferences
MPQ primary scales					
Well-Being	.34** (.17**)	.52** (.27**)	.32** (.19**)	.07 (.00)	−.06 (−.04)
Social Potency	.07 (.04)	.23** (.14**)	.04 (−.02)	−.10* (−.05)	−.05 (−.02)
Achievement	.21** (.08*)	.19** (.04)	.19** (.07†)	.17** (.07†)	.02 (.04)
Social Closeness	.28** (.05)	.37** (.03)	.26** (.07†)	.09† (.02)	−.01 (.00)
Stress Reaction	−.42** (−.18**)	−.61** (−.34**)	−.31** (−.06)	−.19** (−.11*)	.05 (.06)
Alienation	−.49** (−.25**)	−.58** (−.29**)	−.41** (−.23**)	−.26** (−.08†)	−.01 (−.02)
Aggression	−.36** (−.11**)	−.23** (−.01)	−.30** (−.09†)	−.38** (−.17**)	−.10* (−.06)
Control	.29** (.18**)	.07 (.08*)	.25** (.17**)	.45** (.31**)	.08† (.00)
Harm Avoidance	.24** (.14**)	.00 (.00)	.18** (.06)	.33** (.15**)	.19** (.15**)
Traditionalism	.21** (.11**)	.10* (.02)	.24** (.15**)	.26** (.17**)	.03 (.01)
Absorption	−.24** (−.11**)	−.16** (−.05)	−.19** (−.10*)	−.18** (−.07†)	−.10* (−.07)
MPQ factors					
Positive Emotionality	.31**	.46**	.27**	.06	−.04
Negative Emotionality	−.51**	−.58**	−.41**	−.34**	−.01
Constraint	.37**	.08†	.32**	.51**	.15**

Note. N = 756–757. MPQ = Multidimensional Personality Questionnaire. Beta coefficients are given in parentheses to the right of the zero-order correlations and were derived from regression models in which the MPQ primary scales were entered together as predictors of each Personnel Reaction Blank subscale (tested individually). The MPQ factors were not entered into these regression models and were only analyzed at the zero-order level.
† $p < .05$. * $p < .01$. ** $p < .001$.

Table 4

Hierarchical Regressions Predicting Externalizing Scores From Multidimensional Personality Questionnaire (MPQ) Primary Scales and Personnel Reaction Blank Scales

Predictors	ESI-100 (β)	R^2	ΔR^2
Step 1 (entered together)		.61**	
Well-Being	−.01		
Social Potency	.09**		
Achievement	−.07*		
Social Closeness	.03		
Stress Reaction	.08*		
Alienation	.22**		
Aggression	.42**		
Control	−.29**		
Harm Avoidance	−.06†		
Traditionalism	−.09**		
Absorption	.07*		
Step 2 (entered individually)			
Personal Reliability Index	−.25**		.03**
Sense of Well-Being	−.15**		.01**
Prosocial Background	−.25**		.04**
Compliance With Social Norms	−.13**		.01**
Conventional Occupational Preferences	−.05†		<.01†

Note. N = 756–757; ESI-100 = Externalizing Spectrum Inventory, 100-item screening version. Step 1 = MPQ primary scale scores entered together as predictors of ESI-100 scores. Step 2 = PRB scale scores entered individually as predictors of ESI-100 scores after controlling for MPQ scores in Step 1.
† $p < .05$.   * $p < .01$.   ** $p < .001$.

were negligibly correlated with scores on the MPQ Unlikely Virtues scale, an index of social desirability (rs ranged from −.10 to .11). Thus, these items do not appear overly susceptible to impression management (i.e., "faking good") or other overt response styles related to dissimulation.

Discussion

Despite clear conceptual links, the relationship between integrity testing and the externalizing spectrum—as conceptualized and measured within the psychopathology literature—had not been formally investigated prior to the current investigation. The present study sought to address this gap in the literature by delineating the construct network of the PRB in relation to externalizing as measured by the ESI-100 and normal personality as measured by the MPQ. Results revealed a large, negative association between global scores on the PRB and the ESI-100, which were equivalent in magnitude across men and women. Moreover, this relationship was largely (though not entirely) accounted for by information reflected in participants' self-report of their current personality make-up. That is, other elements of the PRB, particularly biographical indicators, were uniquely predictive of externalizing tendencies above and beyond information assessed by the MPQ. Although this finding cannot be taken as evidence for the utility of one approach relative to the other across differing contexts and purposes, as discussed further below, it does provide insight into the construct network of the PRB with respect to the broad domains of personality and psychopathology.

The Role of Externalizing in the Construct Network of the Personnel Reaction Blank

Externalizing, conceptualized as a general propensity toward a broad range of deviant behaviors, is undoubtedly a criterion of paramount importance to the field of integrity testing. The key implication of the current study is that the integrity construct indexed by the PRB and other measures of its type largely reflects this same individual differences factor—that is, general externalizing propensity. The magnitude of the PRB–externalizing rela-

Table 5

Items From the Personnel Reaction Blank Uniquely Predictive of Externalizing Controlling for Multidimensional Personality Questionnaire (MPQ) Personality Correlates

Scale/item no.	Item content[a]	r	β
Sense of Well-Being			
Item 34	Regret about career choice	.23	.07
Item 68	Perceived sense of wrongdoing	.33	.11
Item 76	Frequent feelings of regret over one's actions	.38	.16
Prosocial Background			
Item 41	Frequent truancy from school	.32	.17
Item 46	Frequently disobeyed parents/guardians	.42	.15
Item 47	Lacked interest in school	.24	.10
Item 56	Strived to do well in school	−.33	−.15
Item 58	Was a nuisance to teachers	.36	.16
Item 61	Frequent classroom misbehavior/sent to principal	.42	.21
Item 63	Parents/guardians disapproved of friends	.32	.14
Compliance with Social Norms			
Item 64	Willing to take risks if prompted	.35	.11
Item 71	Is honest if given back too much change at store	−.14	−.06
Item 73	Strictly observes right and wrong	−.17	−.07
Conventional Occupational Preferences			
Item 21	Interested in working as night club entertainer	.24	.09

Note. All coefficients listed above are significant at $p < .01$. Beta coefficients remained significant in their prediction of ESI-100 scores after inclusion of the MPQ primary scale scores in the regression model.
[a] A list of the specific items from the PRB is available from the test publisher (Institute for Personality and Ability Testing).

tionship notwithstanding, the findings also indicate that the PRB is a variegated instrument, tapping an array of distinctive components that vary in their degree of association with externalizing and affiliated traits. The Prosocial Background and Compliance with Social Norms subscales (in reverse) appear most strongly indicative of externalizing and were preferentially related to the most salient personality correlates of this spectrum (Krueger, 1999; Krueger et al., 2001). By contrast, Sense of Well-Being (in reverse) exhibited modest associations with externalizing and was more strongly indicative of neuroticism (i.e., high Stress Reaction) and low positive affect (i.e., Positive Emotionality)—traits that tend to be more robust indicators of internalizing than of externalizing. The Conventional Occupational Preferences subscale was negligibly associated with externalizing and most MPQ correlates; hence, a preference for conventional occupations appears to be a weak predictor of externalizing and does not fall neatly into the nomological network of the PRB.

Consistent with prior research (Krueger et al., 2001), scores on the primary trait scales of the MPQ—in particular, Aggression and Alienation facets of Negative Emotionality and the Control (vs. Impulsivity) facet of Constraint—accounted for a substantial portion of variance in the ESI-100 criterion variable. Nonetheless, scores on each of the PRB scales, most notably the Prosocial Background subscale, contributed incrementally to prediction of ESI-100 scores after accounting for the variance predicted by the MPQ. This result is consistent with the assertion of Ones et al. (1994) that integrity tests can contribute to the prediction of important criterion variables beyond that provided by omnibus measures of normal personality. Although incremental predictions were modest, they are nonetheless notable, given the types of items from the PRB that contributed incrementally to the prediction of externalizing—that is, biographical details pertaining to early behavior problems at home and at school. As with most omnibus personality inventories, including those based on the five-factor model (Costa & McCrae, 1992; John, Naumann, & Soto, 2008), the item content of the MPQ does not include biographical data but rather assesses an individual's self-reported current dispositional tendencies. As articulated in the seminal work of Cattell (1965) and Block (1993), and reiterated by subsequent scholars (Funder, 2001; Tellegen & Waller, 2008), current dispositional personality data reported by a test taker is merely one component of the broader domain of personological data, which encompasses life history data, reports of an individual's current dispositions as provided by others, and objective data (e.g., behavioral, psychophysiological).

The present findings highlight the value of assessing life history data in the prediction of externalizing criteria and echo a fundamental observation in psychological assessment—namely, that past behavior serves as one of the best predictors of future behavior. Furthermore, it may be important to gather life history data separately from other sources of personological data to more accurately disentangle the relative contribution of these data types in the prediction of criteria in the domain of externalizing. Such an approach was taken with the MMPI-2 Restructured Form (Tellegen & Ben-Porath, 2008), in which a higher order dimension of Behavioral-Externalizing Dysfunction encompasses separate scales that assess current dispositional tendencies (e.g., aggression) as well as biographical indicators of deviance (e.g., juvenile conduct problems). Despite the limitations of assessing life history

data (e.g., retrospective recall biases over many years; inability to measure changes in an individual's dispositions over time), assessment of information of this type, in conjunction with self-report indicators of an individual's current dispositional tendencies, may contribute distinctively to the prediction of counterproductive workplace behaviors and other tendencies within the domain of externalizing.

With respect to gender differences, significant mean-level differences between men and women were evident for several scales, mirroring findings from past research on externalizing (Hicks et al., 2007), the PRB (Hogan, 1990; Ones & Viswesvaran, 1998), and the MPQ (Blonigen, Carlson, Hicks, Krueger, & Iacono, 2008; Feingold, 1994). However, gender differences in the magnitude of association among these constructs were selective rather than pervasive. For example, few gender differences were evident in relations between the PRB subscales and externalizing, with the exception of a larger first-order association between the Prosocial Background and the ESI-100 for men than women. Similarly, after controlling for the MPQ primary scales in the hierarchical regressions, only the association between the Prosocial Background and the ESI-100 differed significantly across gender subgroups (i.e., the association was larger for men). Other differences were observed in the form of significant findings for women but not for men (e.g., the first-order relationship between the Sense of Well-Being subscale and the ESI-100); however, such differences could easily have reflected greater statistical power in our larger sample of women. Thus, some caution is warranted in interpreting gender differences from the present study until they are replicated in subsamples of men and women that are more comparable in size. That said, it should also be noted that regardless of observed gender differences, it is illegal to use either different regression lines or gender-based norms in the practice of personnel selection.

Study Limitations

Before discussing conceptual and practical implications of the current findings, some limitations of this study should be acknowledged. For example, we utilized a sample of male and female undergraduates who were 19.5 years old on average; thus, it is unclear to what extent the findings are generalizable to older samples of individuals who are fully employed and engaged in the workforce. This issue is obviated at least somewhat, however, by evidence indicating that age does not correlate substantially with scores on the PRB (Ones & Viswesvaran, 1998). A further limitation is that criterion measures that specifically address counterproductive workplace behaviors (e.g., days absent from work, incidents of employee theft) were not available in the present study. In future work, measurement of specific behaviors of this kind, in conjunction with externalizing proneness as measured by the ESI or other diagnostic indicators, would allow for an evaluation of the extent to which externalizing mediates the relationship between the PRB and counterproductivity in the workplace.

Several assessment-related limitations warrant discussion. First, although the findings highlight the unique contributions of different types of data in the prediction of externalizing, our method of assessment was limited to self-report. Second, remote administra-

tion of study measures diverges from what would likely happen in an actual assessment, given that subjects were tested anonymously and therefore had nothing at stake and were unsupervised when completing the measures. Regarding the issue of anonymity, the reliability of the test scores and validity of the interpretations based on these scores may not be equivalent to applied settings that utilize integrity tests. Thus, replication of the present findings in such applied settings in future work is imperative. Regarding the issue of unsupervised testing, although it is important to acknowledge that we cannot verify whether participants adhered to instructions to complete the study measures on their own, these concerns are mitigated by evidence that (a) internal consistencies were satisfactory for scores on nearly all scales and comparable to past research and (b) only a small proportion of study protocols (1.7%) were deemed to be invalid on account of inconsistent reporting.

Finally, with respect to the ESI-100, it is important to acknowledge issues of (a) discriminant validity and (b) multidimensionality, as well as their implications for the present findings. Regarding the issue of discriminant validity, Krueger et al. (2007) acknowledged that the externalizing spectrum, as measured by the ESI has not been examined from the standpoint of specificity, particularly in relation to the internalizing dimension of psychopathology. Thus, it is unclear whether comorbid internalizing tendencies might have contributed in some measure to observed relations between the PRB and externalizing in this study. Investigation of this issue is critical, given the well-documented finding of a high degree of interrelationship (~.7) between externalizing and internalizing domains of psychopathology (Achenbach & Edelbrock, 1978, 1984). Future work could address this issue with criterion measures of externalizing that have been explicitly demarcated from indicators of internalizing, for example, the higher order factors of the MMPI-2 Restructured Form (Tellegen & Ben-Porath, 2008).

With regard to the issue of multidimensionality, it is important to note that the hierarchical model of the ESI revealed a multidimensional structure, in which an array of distinctive components were evident beyond the general externalizing factor (Krueger et al., 2007). That is, subfactors of callous aggression and substance use were identified, and in addition, several facet scales exhibited large residual variances after their associations with the general externalizing factor were accounted for. Although a multidimensional approach to the assessment of externalizing would be more optimal, the version of the ESI used in the current study was a screening measure developed to assess only general externalizing proneness (i.e., variations in the broad externalizing factor). Consequently, the present findings are limited in their ability to more precisely delineate relations between the distinctive components of both the PRB and the ESI—inventories that capture broad spectra defined by multiple dimensions that may vary in their prediction of counterproductivity. These issues notwithstanding, the present findings are nonetheless valuable, given that (a) spectra do imply significant and nontrivial intercorrelations between constituent subscales of an inventory and (b) prior work has suggested that the general externalizing factor functions effectively as a predictor of external criterion variables in differing domains (Bernat, Nelson, Steele, Gehring, & Patrick, in press; Hall et al., 2007; Patrick et al., 2006; Patrick, Hicks, Krueger, & Lang, 2005).

Implications for the Conceptualization of the Integrity Construct

The current findings call for refinement of the construct of integrity to delineate the specific dispositional subdomains most relevant to prediction of job-related criteria. In particular, indicators of the externalizing spectrum are recommended as focal criteria for scale development. From a practical standpoint, assessment of disinhibitory tendencies that serve as indicators of the externalizing spectrum is critical, as such tendencies underlie a host of counterproductive behaviors that exact an enormous toll on businesses (i.e., work absenteeism, employee theft, property damage, substance use on the job, conflicts with coworkers and supervisors). Thus, externalizing represents a key benchmark and conceptual anchor against which tests of integrity should be constructed and validated.

To the degree that the constructs of integrity and externalizing overlap, this association appears to be reflected largely by the normal-range personality constructs of Negative Emotionality (particularly high Alienation) and Constraint (particularly low Control). Given these correlates, if a five-factor model personality inventory had been used, we would have expected that Agreeableness and Conscientiousness to have substantially mediated the PRB–externalizing association. Notably, however, the current findings also indicate that broadband measures of personality may not fully capture the array of constructs that are theoretically and empirically linked to externalizing and captured within the nomological network of the PRB. Specifically, the significance of the biographical indicators in the present work highlights the importance of examining the extent to which constructs from the child psychopathology literature—for example, early onset conduct disorder (Moffitt, Caspi, Dickson, Silva, & Stanton, 1996) and callous unemotionality (Frick & White, 2008)—are captured by the nomological net of the PRB.

Beyond the externalizing spectrum, the higher order construct of internalizing, which represents a vulnerability to emotional distress, as reflected in traits of low well-being and high-stress reactivity, and pathological states of major depression and anxiety disorders (Clark & Watson, 1991), also appears to be represented in the PRB. For example, the MPQ Stress Reaction scale, a key indicator of internalizing (Krueger et al., 2001), was a consistent and robust predictor of several PRB scales, particularly Sense of Well-Being. Notably, in previous work, internalizing-related constructs (e.g., five-factor model Emotional Stability) have exhibited moderate relations with job performance ratings (Ones et al., 1993) and have been found to mediate associations between integrity test scores and indices of counterproductivity (Barrick et al., 2001; Mount, Ilies, & Johnson, 2006). These points underscore the importance of examining both the externalizing and internalizing dimensions in relation to the PRB in future work as well as testing their independent contributions to the prediction of counterproductive workplace behaviors. In particular, if these dimensions are conceptualized as reflecting temperament-related differences in core motivational systems of avoidance and approach (e.g., Derryberry & Reed, 1994), it is conceivable that the specific job-related outcomes that are most strongly predicted by internalizing tendencies (e.g., impaired relations with supervisors and coworkers because of introversion) may differ qualitatively from those

predicted by externalizing tendencies (e.g., on-the-job misconduct).

Implications for Development and Application of Integrity Tests in Personnel Selection

The current findings encourage a construct-based approach to the assessment of multiple dispositions relevant to performance and behavior in clinical and employment contexts. In particular, the effectiveness of integrity tests for predicting problem behaviors of high consequence in the work environment could be optimized by assembling items that are valid predictors of externalizing—current dispositional tendencies (e.g., aggression, alienation, impulsivity) and childhood behavioral problems (e.g., "When I was going to school I played hooky quite often"). In the case of the latter, such biographical items are advantageous because they are not overly transparent and are less susceptible to social desirability as demonstrated by low correlations with the MPQ Unlikely Virtues scale. A measure of this sort would have considerable utility for personnel selection as well as clinical settings in which overt ("clear purpose") items are likely to be met with nonveridical responses (e.g., correctional services).

From an applied perspective, the current findings have several practical implications for human resource managers. First, an obvious implication of the MPQ correlates of the PRB and externalizing is that hiring employees with low scores on indices of Negative Emotionality (particularly Alienation and Aggression) and high scores on indices of Constraint (particularly Control) is likely to reduce the occurrence of counterproductive workplace behaviors. However, exclusive reliance on assessment of an individual's current dispositional tendencies may overlook the value of assessing aspects of an individual's life history. In addition to providing unique variance in the prediction of externalizing, this type of data may not be as susceptible to impression management as more overt integrity tests that rely on self-reports of severity and frequency of theft and other illegal activities. Accordingly, concurrent assessment of an individual's current disposition along with their early history of rule compliance with parents and teachers may improve the ability to screen out applicants who are most likely to engage in counterproductive workplace behavior. Second, for personnel selection processes that are constrained by time, it may behoove human resource managers to administer only those PRB subscales that exhibit the strongest associations with externalizing—that is, Prosocial Background and Compliance with Social Norms. Third, a recent meta-analysis of five-factor model correlates of counterproductivity by Berry, Ones, and Sackett (2007) found low Agreeableness to be the best trait-based predictor of interpersonal deviance in the workplace (e.g., threatening one's coworkers), whereas low Conscientiousness was the strongest trait-based predictor of "organizational deviance" (e.g., theft, abusing break times). Depending on the primary type of counterproductive workplace behavior for which an employer may want to screen, more weight may be given to scores on either the Aggression and Alienation scales–on account of their links to low Agreeableness—or the Control scale, given its link to Conscientiousness (Church, 1994). For example, for organizations that especially rely on teamwork, cooperation, and compromise between their employees, it may be prudent to give weight to scores on both the Prosocial Background and Compliance with Social

Norms subscales of the PRB, given their respective negative associations with Alienation and Aggression. Conversely, organizations that are more concerned about the impact of organizational deviance may give more weight to scores on the Compliance with Social Norms subscale, given its specificity to MPQ Control.

Finally, in terms of future directions, systematic effort should be devoted to delineating other job-relevant dispositional tendencies that are not indexed by the PRB or other personality-based measures of integrity. In particular, the PRB does not effectively tap traits related to interpersonal efficacy and achievement, which tend to be predictive of leadership and other forms of job efficacy. Traditionally, constructs of integrity and leadership have been investigated separately with different inventories that have distinctive aims. Specifically, integrity tests are used to select out individuals likely to underperform or exhibit counterproductive workplace behaviors, whereas leadership inventories are used to select in individuals with desired interpersonal aptitudes. Assessment of these distinctive constructs in tandem would provide a comprehensive evaluation of content domains relevant to personnel selection and job performance and may help to optimize the selection of employees for particular occupations. Nevertheless, for the assessment of counterproductive workplace behavior per se, the PRB represents one of the best validated personality-based measures of these criteria and captures a construct network that intersects substantially with the externalizing spectrum of psychopathology.

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