

Information Exchange Article

Integrity Tests and Morality: Associations with Ego Development, Moral Reasoning, and Psychopathic Personality

Brian S. Connelly*
University of Minnesota

Scott O. Lilienfeld
Emory University

Kelly M. Schmeelk
Florida State University

Although past research has shown links between integrity tests and the Big Five personality traits, little is known about the relationship between integrity and other individual difference constructs used to predict moral behavior. The present study expands this research by examining the relationships between ego development, moral reasoning, psychopathic personality, and three commonly used integrity tests. Both overt and personality-based integrity tests showed the strongest (negative) correlations with psychopathic personality but only modest correlations with ego development and moral reasoning. On the whole, these findings suggest that integrity tests may be more closely related to overt moral behavior than to moral reasoning.

Purpose

Like many constructs in individual differences psychology, integrity can best be thought of as an open concept, with unclear boundaries and an unclear inner nature. Although there is no widespread agreement on the operational definition of integrity, most authors appear to agree that this construct incorporates a tendency to comply with social norms, avoid deviant behavior, and embrace a sense of justice, truthfulness, and fairness (Becker, 2005). Most studies of integrity tests have investigated their relationships with the Big Five personality traits, with a particular focus on their significant associations with Conscientiousness (Ones, 1993). Nevertheless, the relation between Big Five Conscientiousness and the broader construct of morality ostensibly assessed by many integrity

tests remains controversial (Loevinger, 1994; Spurrison, 1994). Moreover, relatively little research has examined how integrity tests relate to more explicit correlates of morality. Thus, the present study is designed to determine how integrity tests relate to three other constructs believed to be related to morality: ego development, moral reasoning, and psychopathic personality. By examining these constructs, we expect to provide further useful information concerning the boundaries and inner nature of the integrity construct.

Method

Participants

The sample used in this study consisted of 125 undergraduate introductory psychology students from a southern liberal arts university. Their mean age was 18.93, with a standard deviation of 1.00.¹ The sample consisted of 85 Caucasian participants (68%), 24 Asian participants (19.2%), nine African-American participants (7.2%), two Latino/Hispanic participants (1.6%), one Middle-Eastern participant (.8%), and four who classified themselves as "Other" (6.5%). There were 95 women (76%) and 30 men (24%) in our sample.

An earlier version of this paper was presented at a poster session at the annual meeting of the Society for Industrial/Organizational Psychology, Los Angeles (2005).

This research was supported in part by a grant from the Scholarly Inquiry and Research at Emory Program.

*Address for correspondence: Brian S. Connelly, Department of Psychology, Elliott Hall, 75 East River Rd., Minneapolis, MN 55404, USA. E-mail: conne122@umn.edu

Measures²

Stanton Survey. The Stanton Survey is an overt integrity test consisting of 83 Yes/No and multiple-choice questions regarding the individual's history of dishonest behavior, attitudes toward theft and dishonesty, and estimates of the prevalence of theft. Data for the Stanton Survey were sent to the test publisher for scoring, who returned raw scores (with high scores indicating dishonesty), percentile scores, and a credibility index. All analyses were conducted both including and excluding individuals scoring low on the credibility index; however, removing these individuals had no impact on the results reported here. Thus, the results reported here include all cases.

Security Aptitude Fitness Evaluation-Revised (SAFE-R). The SAFE-R scale is an overt integrity test consisting of 94 yes/no and multiple-choice items. The test contains four subscales; however, only the honesty subscale (the relevant measure of integrity) is reported here. Removing individuals with low scores on a validity scale had no impact on the results; therefore, the analyses here include all cases. All scoring was performed by entering data into a computerized program provided by the test publisher.

Personnel Reaction Blank (PRB). The PRB is a personality-based (covert) integrity test consisting of 90 items. For the first 30 items, participants rate their interest in different employment positions using a three-point scale of "Like," "Indifferent," or "Dislike." The other 60 items contain True/False statements not relating directly to counterproductive workplace behaviors. Two scoring keys were provided: an old 42-item key and a prototype of a newly revised 62-item key.

Washington University Sentence Completion Test (WUSCT). The WUSCT was used to measure ego development, a construct that overlaps partly with moral development (Hy & Loevinger, 1996). The WUSCT is a projective test consisting of 36 open-ended sentence stems with different forms for men and women. Individual item responses were ranked according to ego level (E2–E9) by two raters, and were used to calculate an item sum ego level and an ogive ego level. The item sum and ogive rankings were then compared with an overall impression of ego level of each protocol to determine a final protocol ranking. On protocols for which raters disagreed, raters conferred to determine a rating. Although support for the validity of many projective techniques is questionable, the construct validity of the WUSCT has been supported in numerous independent investigations (Lilienfeld, Wood, & Garb, 2000; for a review of Loevinger's theory of ego development, see Manners & Durkin, 2001; see also special issue in Pervin, 1993).

Defining Issues Test (DIT). To measure moral reasoning, we administered the DIT (Rest, 1986), a self-report measure of Kohlberg's (1981) moral development framework. The DIT contains six vignettes that present moral

dilemmas (e.g., the famous Heinz and the Drug dilemma, which asks participants whether a man should steal a medication to save his wife's life), and participants rank the importance of 12 considerations varying in moral complexity pertaining to each moral dilemma. These rankings are used to calculate a *P*-score, which represents the percentage of items scored at the Post-conventional (highest) level of moral reasoning. Twenty-six (20.8%) participants failed the consistency check of the DIT; analyses using the DIT exclude these individuals. Although the consistency check failure rate exceeded the rate suggested by the manual (about 12–13%; Rest, 1990), this study's failure rate was much lower than in previous research on integrity tests and moral reasoning (Cochran, 1991; Lason, 1992).

Psychopathic Personality Inventory (PPI). To measure psychopathic personality (psychopathy), participants were administered the short form of the PPI (Lilienfeld & Andrews, 1996). This measure consists of 56 true/false statements that participants rate on a four-point Likert-type scale (False, Mostly False, Mostly True, and True). The PPI was designed to assess psychopathic personality traits in non-referred (e.g., student, community) samples, such as the sample in the present study. There is increasing evidence that psychopathic personality as assessed by the PPI lies along a continuum, so that the traits of this condition are present in varying degrees in the general population (Marcus, John, & Edens, 2004). As a consequence, non-clinical (e.g., student) samples appear to be appropriate for studying psychopathic personality traits.

The PPI correlates significantly and in predicted directions with self-report and interview-based measures of psychopathy and antisocial behavior (Lilienfeld & Andrews, 1996; Poythress, Edens, & Lilienfeld, 1998). Along with the total PPI score, which represents global psychopathy, the test contains eight subscales, each consisting of seven items: Machiavellian Egocentricity (ruthless manipulateness, and self-centeredness), Social Potency (charm and interpersonal effectiveness), Cold-heartedness (calousness and guiltlessness), Carefree Non-planfulness (insouciant failure to think ahead), Fearlessness (absence of anticipatory anxiety and willingness to take physical risks), Blame Externalization (tendency to attribute responsibility to others for one's mistakes), Impulsive Non-conformity (flagrant disregard for social norms), and Stress Immunity (lack of tension in pressured situations).

Shipley–Hartford Vocabulary Scale. The Shipley–Hartford vocabulary scale was administered to measure participants' verbal proficiency. Some researchers (Sanders, Lubinski, & Benbow, 1995) have argued that the DIT has no incremental validity for personality and psychopathology above and beyond verbal ability. Therefore, the Shipley–Hartford was administered to control for the potential effects of verbal intelligence on the correlates of the WUCST and DIT.

Table 1. Means, standard deviations, and correlations between measures

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Ego Level	5.23	.88	.79															
2. Moral Reas.	39.29	13.64	.38**	—														
3. PPI Total	12.45	16.11	-.12	-.15	.85													
4. PPI M.E.	15.15	3.73	-.22*	-.21	.40**	.75												
5. PPI S.P.	19.54	4.57	.05	-.04	.51**	.05	.85											
6. PPI Cold	13.04	3.04	.08	-.10	.40**	-.10	.20*	.53										
7. PPI C.N.	12.15	2.81	-.16	-.09	.40**	.17	-.06	.20	.67**									
8. PPI F	15.38	5.09	-.12	-.08	.71**	.18*	.15	.15	.29**	.80								
9. PPI B.E.	12.98	3.92	-.10	-.28*	.37**	.36**	-.05	-.04	.04	.13	.82							
10. PPI I.N.	14.59	4.01	.01	.08	.69**	.26**	.20*	.03	.19*	.51**	.31**	.73						
11. PPI S.I.	17.62	4.48	-.04	.06	.47**	-.22*	.37**	.36**	.08	.25	-.23*	.15	.83					
12. Verbal IQ	31.37	4.38	.18	.12	.12	.01	.07	.01	.03	.10	-.05	.22*	.07	.60				
13. Stanton	35.36	1.33	-.13	-.20	.49**	.57**	.09	.10	.28**	.30**	.35**	.30**	.04	.18	—			
14. SAFE-R	38.51	26.15	.12	.14	-.48**	-.39**	-.17	-.11	-.33	-.38**	-.25**	-.27**	-.07	-.18	-.74	—		
15. PRB Old	32.54	4.41	.05	.03	-.45**	-.45**	.02	.01	-.16	-.38**	-.56**	-.49**	.18	-.11	-.44**	.35**	.77	
16. PRB Rev.	41.85	7.45	-.03	.06	-.39**	-.43**	.11	.07	-.21*	-.40**	-.50**	-.47**	.22*	-.18	-.48**	.39**	.88**	.78

Note: $N = 99$ for all correlations with moral reasoning; $N = 125$ for all other correlations. Cronbach's α s are presented in the diagonal. Reliability for ego level is inter-rater agreement based on item-sums. Reliability coefficients are not available for integrity tests scored by the test publisher.

PPI, Psychopathic Personality Inventory; PPI M.E., PPI Machiavellian Egocentricity; PPI S.P., PPI Social Potency; PPI Cold, PPI Cold-heartedness; PPI C.N., PPI Carefree Non-planfulness; PPI F, PPI Fearlessness; PPI B.E., PPI Blame Externalization; PPI I.N., PPI Impulsive Non-conformity; PPI S.I., PPI Stress Immunity; PRB, Personnel Reaction Blank; SAFE-R, Security Aptitude Fitness Evaluation-Revised.

*Correlation is significant at the .05 level (two-tailed).

**Correlation is significant at the .01 level (two-tailed).

Results

A summary of descriptive statistics for each scale is reported in Table 1. The mean percentile scores of the overt integrity scales fell well below the 50th percentile; however, the test publishers reported that this finding is not uncommon among college samples (F. M. Schemmer, personal communication, July 2, 2004). The sample means and standard deviations for the old PRB and for revised PRB scales closely approximated the reported norms for the two scales.

Strong and positive significant correlations were found among nearly all integrity measures (see Table 1). In addition, WUCST ego development displayed a moderate positive correlation with the DIT *P*-score ($r = .39, p < .001$). There was also a weak and marginally significant correlation between ego development and Shipley–Hartford verbal proficiency ($r = .18, p = .05$), but no significant correlation between the DIT *P*-score and the Shipley–Hartford.

No significant relationship was found between WUSCT ego level and integrity test scores. The DIP *P*-score was significantly correlated with the Stanton Survey ($r = -.20^3, p = .049$), but not with any other integrity tests. In addition, partial correlations were calculated to control for verbal intelligence as measured by the Shipley–Hartford score. Controlling for Shipley–Hartford scores did not markedly alter any relationships between either the WUSCT or DIT and integrity tests.

Substantial negative correlations emerged between PPI total psychopathy scores and all integrity test scores. In addition, a number of significant correlations emerged between PPI subscales and integrity test scores. Overt integrity tests showed the strongest correlations with PPI Machiavellian Egocentricity, and the covert scales of the PRB showed the strongest correlations with PPI Blame Externalization and PPI Impulsive Non-conformity. In contrast, PPI Cold-heartedness was not correlated significantly with the integrity measures.

Conclusions

This study revealed strong relationships between integrity scores and many of the traits associated with psychopathic personality. In contrast, no consistent significant relationships emerged between integrity tests and measures of ego development and moral reasoning despite the latter two measures' conceptual and empirical linkages to morality. These findings suggest that many commonly used integrity tests may share significant variance with the traits of psychopathic personality, including a self-centered willfulness to manipulate others, a propensity to externalize blame, and an impulsive tendency to flout social norms. These findings also raise the possibility that integrity tests are less related to moral reasoning than to overt moral behavior. Low scorers on integrity tests may often be just as capable as high scorers of thinking complexly about moral

problems, although such thinking may not always be reflected in their actions. Future research should examine in greater detail the differences among integrity tests in their associations with various psychopathic personality traits and ascertain whether these associations extend to well-validated non-questionnaire-based measures of psychopathy, such as the Psychopathy Checklist-Revised (Hare, 2003).

Acknowledgements

This research was supported in part by a grant from the Scholarly Inquiry and Research at Emory Program. We would like to thank Terry Legge for her generous technical assistance on this study and Deniz Ones and Paul Sackett for their helpful comments on a previous draft of this paper.

Notes

1. One outlier (40 years old) was removed from these descriptives.
2. Questionnaire packets were administered in two counterbalanced forms. No differences were observed between test forms.
3. Because high scores on the Stanton Survey are associated with low integrity, this correlation is in the predicted direction.

References

- Becker, T.E. (2005) Development and validation of a situational judgment test of employee integrity. *International Journal of Selection and Assessment*, 13(3), 225–232.
- Cochran, T.P. (1991) *Preemployment integrity testing by selected retailers as a means of controlling employee theft*. Unpublished doctoral dissertation. Texas Women's College.
- Hare, R.D. (2003) *Manual for the revised psychopathy checklist* (2nd Edn.). Toronto, ON, Canada: Multi-Health Systems.
- Hy, L.X. and Loevinger, J. (1996) *Measuring ego development* (2nd Edn.). New Jersey: Lawrence Earlbaum.
- Kohlberg, L. (1981) *The meaning and measurement of moral development*. Worcester, MA: Clark University Press.
- Lasson, E.D. (1992). *Preemployment honesty testing: Construct validity issues and a test of the person-situation question*. Unpublished doctoral dissertation. Wayne State University.
- Lilienfeld, S.O. and Andrews, B.P. (1996) Development and preliminary validation of a self-report measure of psychopathic personality traits in noncriminal populations. *Journal of Personality Assessment*, 66, 488–524.
- Lilienfeld, S.O., Wood, J.M. and Garb, H.N. (2000) The scientific status of projective techniques. *Psychological Science in the Public Interest*, 1, 27–66.
- Loevinger, J. (1994) Has psychology lost its conscience? *Journal of Personality Assessment*, 62, 2–8.
- Manners, J. and Durkin, K. (2001) A critical review of the validity of ego development theory and its measurement. *Journal of Personality Assessment*, 7, 541–567.
- Marcus, D.K., John, S.L. and Edens, J.F. (2004) A taxometric analysis of psychopathic personality. *Journal of Abnormal Psychology*, 113, 626–635.

- Ones, D.S. (1993). *The construct validity of integrity testing*. Unpublished Ph.D. Dissertation, University of Iowa.
- Pervin, L.A. (1993) Ego development: True or false? [Special issue]. *Psychological Inquiry*, 4(1).
- Poythress, N.G., Edens, J.F. and Lilienfeld, S.O. (1998) Criterion-related validity of the psychopathic personality inventory in a prison sample. *Psychological Assessment*, 10, 426–430.
- Rest, J. (1986) *Moral development: Advances in theory and research*. New York: Praeger.
- Rest, J. (1990) *Manual for the defining issues test*. Minneapolis: Center for the Study of Ethical Development, University of Minnesota, University of MN Press.
- Sanders, C.E., Lubinski, D. and Benbow, C.P. (1995) Does the defining issues test measure psychological phenomena distinct from verbal ability?: An examination of Lykken's query. *Journal of Personality & Social Psychology*, 6, 498–504.
- Spirrison, C.L. (1994) Factorial hue and cry: Comments on Jane Loevinger's "Has psychology lost its conscience?". *Journal of Personality Assessment*, 53(3), 579–583.

Copyright of *International Journal of Selection & Assessment* is the property of Blackwell Publishing Limited and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.