

The Relations between a Self-Report Honesty Test and Personality Measures in Prison and College Samples

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Relatively little is known regarding the relations between self-report honesty measures and the personality domain. Thus, we administered a widely used overt integrity test, the Reid Report Inventory (RRI), and several personality indices, to two samples: 62 male prison inmates, and 180 male and female college students. Personality indices included the Multidimensional Personality Questionnaire (MPQ), the Socialization (So) Scale of the California Psychological Inventory, and the Activity Preference Questionnaire (APQ), a measure of fearfulness. RRI total scores were correlated positively with measures of MPQ Constraint, the APQ, and the So scale, and negatively with measures of MPQ Negative Emotionality and the presence of parole violations. In almost no cases were the above relations significantly affected by social desirability. In addition, the two major RRI subscales, Punitiveness and Attitudes, exhibited differential patterns of relations with several personality measures. Finally, the RRI did not exhibit incremental validity relative to personality indices in the postdiction of parole violations. These findings help to clarify the meaning of RRI scores and provide strong support for the claim that honesty tests are not independent of personality variables. © 1994 Academic Press, Inc.

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The increasing restrictions on the use of the polygraph ("lie-detector") test in industrial settings have led many firms to turn to self-report honesty (integrity) tests as a means of predicting employee theft in the workplace (Lykken, 1981). The most widely used of these measures are "overt" integrity tests, most of which assess attitudes toward, and admissions of, theft and other dishonest behaviors (Sackett, Burris, & Callahan, 1989). Honesty tests have been gaining widespread currency; over 5000 firms have been estimated to administer them to approximately 5 million individuals each year (Goldberg, Grenier, Guion, Sechrest, & Wing, 1991; Sackett & Harris, 1984).

Although honesty tests are frequently employed as preemployment screening devices, they have not typically been subjected to the same rigorous psychometric standards as have many other tests administered in workplace settings, such as the California Psychological Inventory (CPI) and Minnesota Multiphasic Personality Inventory (MMPI). Two recent task force reports (Goldberg *et al.*, 1991; Office of Technology Assessment, 1990), for example, pointed out that most honesty tests have not been adequately construct validated. In particular, although many honesty tests have been found to possess modest validities for predicting employee counterproductive behaviors (Murphy, 1993; Sackett & Harris, 1984; Sackett *et al.*, 1989), the relation of these tests to personality variables has received little attention.

The relation of honesty tests to personality variables is important for at least three reasons. First, such information is critical for evaluating the construct validity of these tests, as the construct of "honesty" would presumably be expected to relate to at least some established personality constructs (e.g., morality, socialization). Such information is also necessary to obtain a better understanding of "honesty," "integrity," and similar constructs (Goldberg *et al.*, 1991).

Second, the extent to which honesty tests possess incremental validity relative to personality measures has received virtually no attention. If honesty tests do not possess incremental validity relative to these measures, employers in some settings might be able to rely upon already collected data from measures of normal and abnormal personality, such as the CPI and MMPI, for the prediction of employee counterproductive behaviors.

Third, some authors (e.g., Andrews & Lilienfeld, 1993; Guastello & Rieke, 1991; Lykken, *in press*) have argued that measures of "honesty" may assess personality traits that are largely or entirely irrelevant to dishonest behavior. If so, the use of these measures as screening devices in employment settings might result in the systematic exclusion of individuals with certain personality characteristics, even though such individuals are not at heightened risk for dishonest or illegal behaviors.

Few published studies have addressed the association between overt integrity tests and personality. Kochkin (1987) examined the relation between a widely used honesty test, the Reid Report Inventory (RRI) (see Ash, 1975), and the 16PF (Cattell, Eber, & Tatsuoka, 1970) in a sample of airline applicants. He found that individuals with low scores on the RRI (i.e., those scoring in the dishonest direction) tend to have low ego and superego strength, and to be impulsive, lacking in self-confidence, and tense. Cunningham, Trucott, and Wong (1990) reported that RRI scores were correlated positively with measures of social desirability and negatively with Christie and Geis's (1969) Machiavellianism scale. Logan, Koettel, and Moore (1986) found that the Phase II profile was positively correlated with the 16PF emotional stability factor. The findings of these three studies suggest that the RRI is associated with morality and low levels of negative emotionality (Tellegen, 1985; Watson & Clark, 1984), a dimension representing a pervasive tendency to become distressed and to evaluate oneself and others negatively. Watson and Clark (1984) have argued that a number of personality tests previously described as measures of maladjustment, neuroticism, and emotional instability can more parsimoniously be viewed as measures of negative emotionality. Finally, Sackett *et al.*'s (1989) review suggests that several "covert" integrity tests (i.e., tests designed to assess personality traits putatively associated with honesty) are negatively associated with indices of negative emotionality and positively associated with indices of socialization, impulse control, and responsibility.

In view of the relative paucity of research on the construct validity of most honesty measures, the goals of the present investigation were threefold. First, we examined the convergent and discriminant validity of the RRI using several self-report personality indices. We included measures of well-established personality constructs, as well as measures relevant to psychopathic personality (psychopathy), a syndrome characterized by dishonesty and a propensity to commit illegal acts (Cleckley, 1982). Based upon the literature, we predicted that RRI scores would be negatively correlated with measures of negative emotionality and positively correlated with measures of socialization and with constraint, a dimension tapping individual differences in fearfulness, impulse control, and behavioral inhibition (Tellegen, 1978/1982). Several authors (e.g., Fowles, 1987) have conjectured that the personality dimension of constraint may assess the insensitivity to signals of punishment observed among psychopaths (Lykken, 1957; Newman, 1987), and that it may be a manifestation of Gray's (1982) septo-hippocampal behavioral inhibition system (Depue & Spoont, 1986). Because of the dearth of research on the personality correlates of honesty measures, however, we did not make clear-cut predictions regarding the relation of the RRI to several other personality vari-

ables, such as Positive Emotionality, a dimension representing a persistent disposition to think and behave in ways that foster pleasant affective experiences (Tellegen, 1978/1982, 1985). Thus, we regard our investigation as partly confirmatory and partly exploratory.

Second, we examined whether social desirability moderates the relations between RRI scores and other measures. Several authors (e.g., Kochkin, 1987) have suggested that a clearer picture of the relations between honesty tests and personality variables might emerge if only respondents with low scores on social desirability indices (i.e., those who do not respond in a socially desirable direction) were considered.

Third, we examined the relations between the RRI and a real-world behavioral measure—parole violations—as well as the RRI's incremental validity for parole violations relative to several personality indices. We believed that examination of the relation between the RRI and parole violations would shed further light upon the criterion-related validity of the RRI.

We explored these issues in two samples: male prison inmates and male and female college students. The marked differences between these two samples should provide a rather stringent test of the replicability and generalizability of our findings. In this manuscript, we focus on the correlations between the RRI and other variables in prison and college samples; analyses of mean differences between these samples on the RRI and other measures are reported elsewhere (Andrews & Lilienfeld, 1993).

METHOD

Subjects

Prison subjects were 71 male inmates at a maximum security facility in Minnesota. Six subjects were excluded on the basis of elevated scores on two validity indices (see below): the Multidimensional Personality Questionnaire (MPQ) Variable Response Inconsistency (VRIN) and True Response Inconsistency scales (TRIN). Three additional prisoners were excluded because of excessive missing questionnaire data, leaving a total of 62 subjects. These subjects' mean age was 29.4 ($SD = 7.2$). Subjects were given computerized feedback on their scores on the MPQ (see below) and were paid \$5 for their participation.

College subjects were 184 male and female students at a community college in Minnesota. Four subjects were excluded because of elevated scores on MPQ VRIN and TRIN, leaving a total of 180 subjects. Of these, 67 were male and 113 female. These subjects' mean age was 22.4 ($SD = 7.0$). All subjects received course credit for their participation.

Measures

Respondents in both samples were assured of confidentiality prior to completing the personality test battery. With the exception of the Activity Preference Questionnaire (which was not administered to college students because of time constraints), all subjects were administered four major self-report measures:

(1) *The RRI*. This overt integrity test consists of 90 questions in a Yes–No format designed to measure two major dimensions: (1) Punitiveness, i.e., feelings regarding appropriate

punishments for theft and related crimes, and (2) Attitudes, i.e., attitudes regarding dishonest behaviors and beliefs regarding the dishonesty of others (Ash, 1975). Although largely derived rationally, these two dimensions have also been recaptured in factor analyses of the RRI (Cunningham & Ash, 1988). In addition, the RRI yields a total score that is interpreted as a global index of honesty. High scores on the RRI reflect high levels of "honesty."

(2) *The MPQ* (Tellegen, 1978/1982). The MPQ is a 300-item measure designed to assess the major higher- and lower-order dimensions of self-reported personality. It consists of three higher-order factors: Positive Emotionality (PE), Negative Emotionality (NE), and Constraint (CN), which correspond to the "Big Three" dimensions identified in many omnibus measures of personality (Cloninger, 1987; Eysenck & Eysenck, 1975; Tellegen, 1978/1982).

In addition, the MPQ comprises 11 lower-order factors: Wellbeing, Achievement, Social Potency, Social Closeness, Stress Reaction, Aggression, Alienation, Control vs Impulsiveness, Harmavoidance, Traditionalism, and Absorption. The first four of these factors primarily assess PE, the next four NE, and the next three CN; Absorption does not load primarily on any single higher-order factor. The MPQ also contains several validity scales, including VRIN, an index of inconsistent responding, TRIN, an index of acquiescence, Desirable Response Inconsistency (DRIN), an index of social desirability, and Unlikely Virtues (UNVIRT), an index of impression management that is similar in content to the MMPI Lie scale.

The MPQ lower-order scales have high internal consistencies (alphas reported in the manual range from .76 to .89; Tellegen, 1978/1982), and show a highly promising pattern of convergent and discriminant validity with a variety of self-report measures, and with ratings by parents and peers (Tellegen & Waller, in press). Moreover, the MPQ lower- and higher-order scales are relatively independent of one another (Tellegen, 1978/1982), making them well-suited for examining the discriminant validity of the RRI.

(3) *The CPI Socialization (So) Scale* (Gough & Peterson, 1952). This 54 item measure was developed to assess the role-taking deficits characteristic of psychopathy, and was constructed empirically by contrasting the responses of delinquents and nondelinquents. The So scale has been reported to have an internal consistency of .74 (Lilienfeld, 1990). The So scale administered in childhood has been found to predict delinquency (Yates, 1970) and ratings of traits such as irresponsibility in adulthood (Block, 1971). The So scale has been reported to rank order a variety of criterion groups on a hypothesized continuum of socialization (Gough, 1960). Moreover, the So scale has been found to possess good construct validity as a measure of psychopathy when administered in isolation (i.e., when extracted from the full CPI; e.g., see Hare, 1985). High scores on the So scale reflect high levels of socialization.

(4) *The Activity Preference Questionnaire (APQ)* (Lykken, Tellegen, & Katzenmeyer, 1973). This 74-item forced-choice measure was designed to assess fearfulness, and appears to be a marker of the CN dimension of the MPQ (Tellegen, 1978/1982). Indeed, a number of items on the MPQ Harmavoidance scale are similar in content and format to APQ items. Each APQ item consists of two choices, one of which is unpleasant primarily because it is burdensome or onerous, and the other of which is unpleasant primarily because it is frightening or embarrassing. Within each item, the two choices have been matched for desirability by a series of judges using a modified Thurstone scaling procedure (Lykken *et al.*, 1973). The APQ consists of two moderately intercorrelated factors, Social Fearfulness and Physical Fearfulness. The APQ also contains a Validity Scale consisting of items in which both choices are either burdensome/onerous or frightening/embarrassing, but which differ substantially in rated desirability (because there were no clear outliers on the APQ Validity Scale, it was not used to exclude subjects).

The internal consistency of the APQ has been reported to range from .82 to .86, and the internal consistencies of its two subscales have been reported to range from .78 to .84 (Lykken *et al.*, 1973). Low scores on the APQ have been reported to be associated with psychopathy (Lykken, 1957), although more recent studies cast doubt upon this relation (Hare & Cox, 1978). In addition, the APQ has been found to be negatively correlated with the frequency of minor criminal offenses among college students and recidivism among juvenile offenders, and to distinguish delinquent from normal adolescents (Lykken *et al.*, 1973). Given that fear has long been viewed as a major inhibitor of dishonest behavior (Schachter & Latané, 1964), the APQ appears to represent a meaningful index with which to evaluate the construct validity of the RRI. The version of the APQ employed here was a slightly abbreviated 70-item version of the original APQ.

Parole violations. In the prison sample, data were available on whether each subject had a history of parole violations. The presence versus absence of such a history was coded as a dichotomous variable.

RESULTS

Reliability of the RRI

The internal consistencies of the RRI total honesty score in the prison and college samples, as measured by Cronbach's alpha, were .92 and .88, respectively. These values are consistent with those previously reported for the RRI (Brodsky, 1978). The mean interitem r 's for the RRI total honesty score in these two samples were .13 and .08, respectively. The alphas of the Punitiveness subscale in the prison and college samples were .87 and .83, respectively (mean interitem r 's = .17 and .12, respectively), while the alphas of the Attitudes subscale in the prison and college samples were .87 and .85, respectively (mean interitem r 's = .16 and .11, respectively). These results indicate that the RRI and its subscales possess high internal consistency, although neither the RRI nor its subscales are highly homogeneous at the item level.

Zero-Order Correlations between the RRI and Personality Measures

Although several predictions were made regarding the personality correlates of the RRI, we did not feel confident in making predictions regarding the relation of the RRI to all personality measures (see the Introduction). Consequently, two-tailed tests were utilized in all analyses to provide conservative tests of the relations between the RRI and its subscales with other measures. The correlations between the RRI total honesty score and the other self-report measures in both samples are shown in Table 1.

In the prison sample, RRI total honesty scores were significantly correlated with two of the three MPQ higher-order scales, viz., NE ($r = -.41$) and CN ($r = .40$). The correlation with PE, although positive ($r = .24$), was not significant. In addition, RRI total honesty scores were significantly correlated with a number of MPQ lower-order scales: Control vs Impulsiveness ($r = .43$), Aggression ($r = -.39$), Stress Reaction (r

TABLE 1
CORRELATIONS BETWEEN THE RRI TOTAL HONESTY SCORE AND PERSONALITY VARIABLES
AMONG PRISONERS AND COLLEGE STUDENTS

| | Prisoners ^a | College students ^b |
|--------------------------|------------------------|-------------------------------|
| MPQ scales | | |
| PE | .24 | .12 |
| NE | -.41** | -.26** |
| CN | .40** | .35** |
| Wellbeing | .25 | .17* |
| Achievement | .22 | .12 |
| Social Potency | .11 | -.06 |
| Social Closeness | .34* | .29** |
| Stress Reaction | -.34* | -.11 |
| Alienation | -.33* | -.22** |
| Aggression | -.39** | -.39** |
| Control vs Impulsiveness | .43** | .28** |
| Harmavoidance | .18 | .22** |
| Traditionalism | .17 | .25** |
| Absorption | -.23 | -.16* |
| VRIN ^c | -.21 (.11) | -.06 (-.05) |
| TRIN ^c | -.20 (-.18) | .04 (.00) |
| DRIN | .10 | .16* |
| UNVIRT | .14 | .23** |
| APQ scales ^d | | |
| Total score | .44** | — |
| Social Fearfulness | .37** | — |
| Physical Fearfulness | .37** | — |
| Validity | .09 | — |
| So scale | .42** | .45** |

Note. None of these correlations differed significantly between the prison and college samples (all U 's < 2.6 , $p > .05$).

^a n 's for these correlations range from 55 to 59.

^b The N for all of these correlations is 177.

^c Numbers in parentheses are correlations including subjects with elevated VRIN and TRIN scores.

^d The APQ was administered to the prison sample only.

* $p < .05$, two-tailed.

** $p < .01$, two-tailed.

= $-.34$), Social Closeness ($r = .34$), and Alienation ($r = -.33$). RRI total honesty scores were also significantly correlated with APQ Total ($r = .40$), Social Fearfulness ($r = .31$), and Physical Fearfulness ($r = .35$) Scores. Finally, RRI total honesty scores were significantly correlated with ($r = .42$) with So scale scores.

Before computing the correlations between the RRI and other variables in the college sample, we examined the relations among the measures

separately in males and females. Box's M test of the equality of the male and female covariance matrices was not significant ($Box's M = 268.95$, $F(210, 58822.3) = 1.1119$, $p > .1$), indicating that we could not reject the null hypothesis that these covariance matrices were homogeneous. Consequently, the male and female samples were combined in subsequent analyses.

In the college sample, RRI total honesty scores were also significantly correlated with NE ($r = -.26$) and CN ($r = .35$). Once again, the correlation with PE, although positive ($r = .12$), was weak and nonsignificant. As in the prison sample, the RRI total honesty score was significantly correlated with a number of MPQ lower-order scales: Aggression ($r = -.39$), Social Closeness ($r = .29$), Control ($r = .28$), Traditionalism ($r = .25$), Alienation ($r = -.22$), Harmavoidance ($r = .22$), Wellbeing ($r = .17$), and Absorption ($r = -.16$). In addition, the RRI total honesty score was weakly, but significantly, positively correlated with two MPQ validity scales relevant to social desirability, DRIN ($r = .16$) and UNVIRT ($r = .23$). Finally, the RRI total honesty score was significantly positively correlated ($r = .45$) with the So scale.¹

Comparison of the Prison and College Samples

A test of the covariance matrices between the prison and college samples (excluding the APQ which, as noted earlier, was administered to the prison sample only) revealed that these matrices were not homogeneous ($Box's M = 332.01$, $F(210, 31276.9) = 1.3527$, $p = .0005$), indicating that the relations among the measures were significantly different in the prison and college samples. Nevertheless, tests of the significance of the difference between independent correlations (Marascuilo & Levin, 1983) failed to reveal any significant differences in the correlations between the RRI and the self-report measures across the two samples (all U 's < 2.6 , $p > .05$). Although the test of the significance of the difference between independent correlations has relatively low power (Stone, 1988), these results suggest that the relations between the RRI and other self-report measures in these two samples are generally comparable. To further evaluate the similarity of the relations between the RRI and the personality measures in the prison and college samples, we computed the Pearson product-moment correlation between the correlations in Table 1 across

¹ In order to exclude the possibility that our findings on the personality correlates of the RRI were attributable to Type 1 error, we calculated the exact binomial probability (Siegel & Castellan, 1988) expected by chance of 11 of 23, and 13 of 19, rejections of the null hypothesis in the prison and college samples, respectively. In both cases, the probability of finding the observed number of correlations by chance was less than .0000005, indicating that the significant correlations between the RRI total honesty score and personality measures in both samples cannot plausibly be attributed to Type 1 error.

the two samples. This correlation (based upon the 19 sets of r 's) was .92, indicating that the correlations between the RRI and the other self-report indices were very similar in the prison and college samples.

Parole Violations

Of the 60 prisoners for whom information regarding history of parole violations was available, 13 had violated parole on at least one occasion (information on frequency of parole violations was not available). To examine the correlates of parole violations, we computed point-biserial correlations between the self-report measures and the presence versus absence of parole violations. RRI total honesty scores were significantly correlated ($r = -.32$) with the presence of prior parole violations: prisoners who were less "honest" as assessed by the RRI were more likely to have violated parole. History of parole violations was also significantly correlated with four personality variables: MPQ CN ($r = -.33$), the So scale ($r = -.32$), and APQ total ($r = -.27$) and Physical Fearfulness ($r = -.27$) scores.

Moderating Effects of Social Desirability

We next examined whether the relations between RRI total honesty scores and other measures were moderated by social desirability; i.e., were these relations weaker for subjects who appeared to respond in a socially desirable fashion? To do so, we employed moderated multiple regression (e.g., Stone, 1988) with the MPQ DRIN scale as a moderator, and the three MPQ higher-order factors, the So scale, APQ total score, and parole violations as dependent measures (the latter two in the prison sample only). For all analyses, RRI scores and DRIN were entered in the first step, followed by the product of RRI scores and DRIN on the second step. Separate analyses were conducted in the prison and college samples.

In only one case did the interaction term reach significance in either sample: the relation between the RRI and parole violations was moderated by DRIN (r^2 change = .10, F change(3, 57) = 7.62, $p < .01$). Nevertheless, the direction of this effect was surprising: the association between the RRI and parole violations was stronger at *higher* levels of social desirability. In no other cases did the interaction term reach significance or account for more than 5% of the variance in either sample.

A parallel set of analyses using UNVIRT as a moderator yielded similar findings, with no interaction terms reaching significance or accounting for more than 4% of the variance in either sample. Thus, there was little evidence that the relation between the RRI and the dependent measures differed at different levels of social desirability. Although the unexpected effect for parole violations warrants further investigation, the large number

of analyses conducted across both samples (20) raises the possibility that this finding is attributable to Type 1 error.²

Differential Correlates of RRI Subscales

Although the RRI Punitiveness and Attitudes subscales were moderately intercorrelated (r 's = .49 and .40 in the prison and college samples, respectively), they exhibited several differential personality correlates. In each sample, we compared the correlations of the two subscales with the major personality variables using the test of the significance of the difference between dependent correlations (Cohen & Cohen, 1983). In the prison sample, four variables showed significant differences between the subscales at the .05 level (two-tailed); for three of these, the absolute value of the correlation with the Attitudes subscale was higher than that with the Punitiveness subscale. These were: Stress Reaction ($r = -.43$ vs $r = -.14$, $t(56) = 2.35$, $p < .05$), Alienation ($r = -.40$ vs $r = -.14$, $t(56) = 2.10$, $p < .05$), and the So scale ($r = .56$ vs $r = .15$, $t(56) = 3.77$, $p < .001$). In the case of Social Potency, the correlation with Punitiveness exceeded that with Attitudes ($r = .25$ vs $-.06$, $t(56) = 2.48$, $p < .05$).

In the college sample, seven variables showed significant differences between the subscales at the .05 level (two-tailed); for all of these, the absolute value of the correlation with Attitudes exceeded that with Punitiveness. These were: NE ($r = -.33$ vs $-.09$), $t(174) = 3.07$, $p < .01$), Alienation ($r = -.27$ vs $-.09$, $t(174) = 2.17$, $p < .05$), Aggression ($r = -.42$ vs $-.21$, $t(174) = 2.90$, $p < .01$), Harmavoidance ($r = .30$ vs $.04$, $t(174) = 3.33$, $p < .01$), Absorption ($r = -.22$ vs $-.03$), $t(174) = 2.41$, $p < .05$), UNVIRT ($r = .28$ vs $.08$, $t(174) = 2.61$, $p < .01$), and the So scale ($r = .49$ vs $.24$, $t(174) = 3.41$, $p < .001$).³

In general, these findings suggest that the Attitudes subscale is more highly associated (negatively) with lower- and perhaps higher-order measures of negative emotionality than is the Punitiveness subscale, although Alienation was the only MPQ scale that exhibited significant differences

² We also conducted analyses in both samples to examine the extent to which social desirability might have contributed to the correlations between the RRI and the other self-report measures. Consequently, we computed partial correlations between the RRI and personality variables holding the level of DRIN constant. An identical set of analyses was performed holding the level of UNVIRT constant. Although most of the correlations between the RRI and personality variables dropped slightly, their overall pattern and significance remained virtually unchanged.

³ We also Bonferroni-corrected these comparisons to reduce the probability of Type 1 error. In the prison sample, only the So scale showed a significant difference at the revised alpha level of .0022 (.05/23). In the college sample, both MPQ Aggression and the So scale showed significant differences at the revised alpha level of .0026 (.05/19).

in both samples. The higher correlation of Attitudes with the So scale in both samples may reflect the heavy saturation of both measures with item content assessing antisocial behaviors and attitudes.

Incremental Validity

Finally, in the prison sample, we examined whether the RRI contributed information over and above the other self-report measures in the postdiction of parole violations. To do so, we utilized hierarchical logistic regression using parole violations as the dependent variable. The three MPQ higher-order scales, the APQ total score, and the So scale were entered in stepwise fashion on the first step, and the RRI total honesty score was entered on the second step to ascertain its incremental contribution to postdicting parole violations. On the first step, the model chi-square was highly significant: $\chi^2(5, N = 54) = 15.28, p < .01$, and overall classification accuracy was 88.89%. On the second step, however, the model chi-square did not approach significance: $\chi^2(1, N = 54) = .96, p > .32$, and overall classification accuracy remained unchanged.

We then performed a second analysis, again using parole violations as the dependent measure, but in which the order of entry was the reverse of that in the first analysis. Thus, in the second analysis, the RRI total honesty score was entered in the first step, and the three MPQ higher-order scales, the APQ total score, and the So scale were entered in the second step. On the first step, the model chi-square was again significant: $\chi^2(1, N = 54) = 5.30, p < .05$, and overall classification accuracy was 77.78%. In contrast to the first analysis, however, the model chi-square on the second step was marginally significant: $\chi^2(5, N = 54) = 10.94, p < .053$, and overall classification accuracy rose to 88.89%.

Thus, although the RRI significantly postdicted parole violations, it failed to provide incremental information relative to the personality measures. In contrast, the personality measures provided a marginally significant increment in the postdiction of parole violations relative to the RRI.

DISCUSSION

Although research on honesty tests has traditionally been conducted almost exclusively within the province of industrial-organizational psychology, our findings demonstrate that the RRI assesses a number of constructs relevant to personality psychologists as well. In this study, we administered an omnibus measure of personality (the MPQ) to clarify the relation of the RRI to the major self-report dimensions of personality, as well as two measures (the So scale and the APQ) relevant to psychopathy, a syndrome characterized by dishonesty. As predicted, we found RRI total honesty scores to be correlated negatively with measures of NE

and positively with measures of CN. Also as predicted, RRI total honesty scores were positively correlated with the APQ and So scale. These latter two correlations, in conjunction with the positive correlation of the RRI with CN, suggest that high scorers on the RRI are less likely than low scorers to endorse traits characteristic of psychopathy, such as behavioral disinhibition (Fowles, 1987), fearlessness, and inadequate socialization. Moreover, the overall pattern of correlations in the prison and college samples was very similar, suggesting that our results may be generalizable to other samples.

Our results corroborate those of Kochkin (1987), who found that high scorers on the RRI tend to have better psychological adjustment and lower levels of emotional upset and impulsivity compared with low RRI scorers. In addition, our results replicate and extend several previous findings (see Sackett *et al.*, 1989) that high scores on covert integrity tests are associated with high levels of socialization, as assessed by the So scale. Nevertheless, our results appear to go beyond previous findings in suggesting that the RRI maps primarily onto two of the "Big Three" personality dimensions—NE and CN—and is weakly related, if at all, to PE. Consequently, our results help to locate the RRI within the factor space defined by the major self-reported dimensions of personality. We did not examine the relation of the RRI to conscientiousness, despite the fact that several honesty measures appear to assess this construct (Murphy, 1993; but see Woolley & Hakstian, 1992). Because CN overlaps considerably with conscientiousness (Tellegen & Waller, *in press*), however, our findings are broadly consistent with previous reports of an association between honesty tests and conscientiousness.

Although a number of our findings appear to provide support for the construct validity of the RRI, the implications of several of our other findings for the RRI's construct validity are unclear. For example, the RRI's positive correlation with MPQ Social Closeness and negative correlation with MPQ Alienation seem somewhat difficult to reconcile with the claim that the RRI simply assesses "honesty," "integrity," or similar constructs. Because many of the developers of honesty tests, including the RRI, appear not to have explicitly delineated the nomological network in which their tests are embedded (Cronbach & Meehl, 1955), it is unclear whether these correlations should be interpreted as reflecting positively upon the RRI's convergent validity, or as reflecting negatively upon its discriminant validity.

We also found that the RRI significantly postdicted parole violations, although the magnitude of this relation was relatively weak. To our knowledge, this is the first report that an honesty test is associated with parole violations, and is consistent with prior data indicating that the RRI possesses validity for at least some behavioral criteria. Parole violations ap-

pear to represent a relevant criterion for honesty measures, because the violation of parole amounts to the breaking of a promise (often an explicit one) to curtail antisocial behavior.

Nevertheless, several limitations of this finding should be noted. Parole violations are clearly a function of a number of other variables (e.g., number of convictions, length of imprisonment), which were unavailable to us in the present study. In addition, the RRI failed to postdict parole violations over and above other measures, making further investigation of its incremental validity relative to personality variables warranted. Finally, because our data were postdictive, studies of the RRI's predictive validity for parole violations are necessary.

Recently, a task force of the American Psychological Association (APA) issued a report dealing with a number of honesty testing issues (Goldberg *et al.*, 1991). Our findings meet several important research needs noted by the APA task force. First, the correlations that we reported between RRI scores and personality variables clarify the nomological network surrounding the RRI, and help to meet the need cited by the task force for more data on the construct validity of honesty tests and the meaning of honesty test scores. Second, the correlation between RRI scores and parole violations helps to meet the need cited by the task force for additional evidence on the criterion-related validity of honesty tests. Third, the analyses we conducted to examine the influence of social desirability on the relations between the RRI and other constructs helps to meet the need cited by the task force for research on the effects of response sets on honesty test scores.

We conclude with three caveats. First, because behavioral indices among subjects in the prison sample (e.g., disciplinary evaluations and staff ratings of dishonest behavior) were not available to us, we were (with the exception of parole violations) unable to explore the relation of the RRI to real-world criteria relevant to prison inmates. Moreover, because we did not examine individuals in workplace settings, we were unable to explore the relation of the RRI to criteria relevant for preemployment screening, such as theft and absenteeism.

Second, these questionnaires were administered in settings in which respondents were assured of confidentiality, and had little or no extrinsic motivation to distort their responses. Thus, although these findings provide preliminary support for certain aspects of the RRI's construct validity, they bear no necessary implications for its use as a screening device in industrial settings. Although we found little or no evidence that scores on social desirability measures moderated the relations between the RRI and the other indices, the range of social desirability scores in our sample may be lower than would be found in a typical sample of job applicants (who presumably are more motivated to distort their responses). In ad-

dition, self-report indices of social desirability should not be interpreted as simple measures of response sets; such indices are associated with a number of personality variables, particularly negative emotionality (Watson & Clark, 1984). This fact may explain the positive, albeit relatively weak, correlation found here between the RRI and UNVIRT (and, to a lesser extent, DRIN) in both samples, as well as previous reports (Cunningham *et al.*, 1990; Kochkin, 1987) that scores on honesty tests tend to be positively correlated with social desirability indices. Moreover, moderated multiple regression has relatively low power for detecting interaction effects, particularly when these effects are only weak or moderate in magnitude (Stone, 1988).

Third and finally, our findings suggest that the RRI shares variance with a variety of personality traits not traditionally considered central to the trait of honesty, such as fearlessness, aggressiveness, alienation, desire for interpersonal intimacy, and perhaps stress reactivity and traditionalism. Although a plausible argument could perhaps be made for the relevance of certain of these traits (e.g., fearlessness; see Schacter & Latané, 1964) to the construct of honesty, we believe these findings to be potentially problematic for both theoretical and applied reasons. Because some of these traits may covary only weakly with the latent construct of honesty, it is conceivable that a number of honest individuals will be systematically excluded from occupations because of their standing on certain personality traits. In addition, some of these traits, such as fearlessness and aggressiveness, may be adaptive to some extent in certain settings (e.g., law enforcement, military combat, firefighting). Thus, both researchers and employers need to be cognizant of the possibility that "honesty" tests assess considerably more than honesty.

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