

Validity Study

Relationship between the Performance Perspectives Inventory's Conscientiousness Scale and Job Performance of Corporate Security Guards

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We investigated the relationship between the Performance Perspectives Inventory's (PPI, Abraham & Morrison, 2002) Conscientiousness scale and job performance using a sample of corporate security guards. Conscientiousness correlated positively with the mean of 12 supervisory ratings of job performance ($r = .30$, $n = 55$). Three Conscientiousness subscales (Diligence, Initiative, Thoroughness) also correlated significantly with the job performance measure. Additionally, correlations are reported between (a) Conscientiousness and demographic variables (age, gender, education level, ethnic group); and (b) other PPI Big Five major scales (Agreeableness, Extraversion, Openness, Stability) and job performance.

Sample

The sample consisted of 56 corporate security guards employed by a security company in the southeastern United States. The mean age of sample participants was 42 years, and the median education level was "high school graduate or equivalent." Sixty-six percent were men and 34% were women. Seventy-seven percent were African American, 18% were White, 4% were Hispanic, and 1% did not provide ethnic group information. One individual whose job performance was more than 3 SD's beyond the mean was excluded from the sample, leaving a total of 55 cases for all analyses.

Predictor Information

The Performance Perspective Inventory (PPI, Abraham & Morrison, 2002) is a 155-item measure of the Big Five personality factors (Digman & Takemoto-Chock, 1981; Goldberg, 1992). Respondents indicate how accurately each item describes them using a five-point scale. Of particular interest in this study was the PPI Conscientiousness scale, which measures the extent to which one persists at tasks, pursues goals, and takes an organized approach to assignments. The technical manual reports that the PPI Conscientiousness scale has an internal consistency (Cronbach's alpha) reliability of .88 ($n = 247$), and a test-retest reliability of .92 ($n = 73$, 32-day retest interval).

Previous research supports the construct validity of PPI Conscientiousness (Abraham & Morrison, 2002). For example, the scale correlates significantly with

self-reports of conscientiousness (see Table 1) using the Big Five Inventory (BFI, Benet-Martinez & John, 1998), a brief measure of the Big Five frequently utilized in research settings. It also correlates significantly with observer ratings of conscientiousness collected using the BFI (see Table 1).

The PPI Conscientiousness scale is comprised of five subscales. Achievement Focus (Cronbach's alpha = .83) measures the extent to which persons find it important to set and meet challenging work, career, and personal goals. Diligence (Cronbach's alpha = .79) measures the extent to which persons prefer to pursue tasks with intensity and persistence. Initiative (Cronbach's alpha = .72) measures individuals' willingness to take on tasks without guidance or direction from others. Organization (Cronbach's alpha = .75) measures individuals' tendencies to impose structure on their work. Lastly, Thoroughness (Cronbach's alpha = .80) measures individuals' proclivity for exacting work and work involving details.

Criterion Information

Supervisors completed a 12-item measure of security guard job performance. For each item, the supervisor rated the security guard's level of effectiveness using a five-point scale. An example item is "firmly and fairly enforce security policies and procedures with all on the premises." Missing ratings were replaced with the mean of all other performance ratings for each security guard. The 12 job performance items were averaged to create an overall job performance measure (Cronbach's alpha = .90).

Hypothesis

A literature search did not yield any published validity studies investigating conscientiousness in a corporate security guard sample. Nevertheless, published meta-analyses indicate that conscientiousness is consistently related to job performance across jobs (e.g., Barrick & Mount, 1991; Salgado, 1997), and our job analysis indicated that the corporate security guard position requires initiative, effort, and attention to detail. For example, job requirements included "working effectively without close supervision", "remaining vigilant under tedious conditions", and "attending to details sufficiently to document and report activity." Therefore, we expected that the PPI Conscientiousness scale would correlate with overall job performance of corporate security guards, as rated by supervisors.

Table 1: Correlations between PPI Conscientiousness and BFI scales (from Abraham & Morrison, 2002)

BFI Scale	Self Ratings (n = 44)	Observer Ratings (n = 51)
Agreeableness	.19	.03
Conscientiousness	.83**	.60**
Emotional Stability	.33*	.17
Extraversion	.22	.04
Openness to Experience	.31*	.24

* p < .05, ** p < .01

Validity Information

The mean of Conscientiousness in the final data set was 4.34, with a standard deviation of .36. The mean of overall job performance was 4.12, with a standard deviation of .45. As expected, Conscientiousness correlated significantly with overall job performance ($r = .30$, see Table 2).

Additionally, we correlated Conscientiousness with four demographic variables: age, educational level, gender (1 = male, 2 = female), and ethnic group (1 = White, 2 = African American). Neither age ($r = .07$, $n = 55$), education level ($r = .16$, $n = 53$) nor gender ($r = -.01$, $n = 55$) correlated significantly with Conscientiousness. However, ethnic group did correlate significantly with Conscientiousness ($r = .28$, $n = 52$), with African Americans scoring higher than Whites. This result differs from the correlation between ethnic group (identically coded) and Conscientiousness in the broader PPI norms database ($r = .08$, $n = 596$, $p > .05$), which does not include data from this security guard sample.

To provide additional information for future meta-analytic studies, we performed an exploratory analysis to assess the relationship between overall job performance and both (a) the PPI Conscientiousness subscales and (b) the other PPI Big Five scales (Agreeableness, Extraversion, Openness, and Stability). Tables 2 and 3 show the results. Note that the correlations between three Conscientiousness subscales (Diligence, Initiative, and Thoroughness) and overall job performance were statistically significant. The correlations between overall job performance and the other PPI Big Five scales did not attain statistical significance.

Table 2: Correlations with Performance and Demographic Variables

Variable	Reliability		Overall job performance (n=55)	Demographic Variable			
	Alpha	Test-retest		Education (n=53)	Sex (n=55)	Race (n=52)	Age (n=55)
Overall Job Performance	.90	n/a	n/a	.14	.01	.05	.08
PPI Scale							
Conscientiousness	.88	.92	.30*	.16	-.01	.28*	.07
Achievement focus	.83	.73	.07	.22	.05	.35*	-.11
Diligence	.79	.89	.32*	.02	.26	.35*	-.16
Initiative	.72	.78	.28*	.05	.00	.21	.05
Organization	.75	.88	.17	.08	-.08	.09	.11
Thoroughness	.80	.81	.30*	.26	-.19	.09	.29*
Agreeableness	.78	.90	-.03	.21	.04	-.02	-.17
Extraversion	.79	.89	.20	.17	-.26	-.07	-.07
Openness	.84	.87	.13	.37**	-.18	.27	-.31*
Stability	.85	.86	.12	.23	.05	.33*	-.13

Note: With the exception of overall job performance, all reliabilities are from the PPI Technical Manual

Table 3: Correlations among PPI Scales

PPI Scale	PPI Scale									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Conscientiousness	-	.79**	.75**	.78**	.77**	.75**	.42**	.23	.46**	.59**
2. Achievement focus		-	.61**	.52**	.56**	.43**	.35**	.26	.60**	.56**
3. Diligence			-	.64**	.37**	.40**	.48**	.17	.28*	.46**
4. Initiative				-	.41**	.45**	.22	.15	.36**	.48**
5. Organization					-	.54**	.28*	.05	.23	.45**
6. Thoroughness						-	.31*	.29*	.35**	.32*
7. Agreeableness							-	.22	.26	.43**
8. Extraversion								-	.57**	.14
9. Openness									-	.34*
10. Stability										-

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