Workplace Personality Inventory

Evidence of Reliability and Validity

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Participant Description

Unless otherwise noted, the results of the WPI analyses presented in this report are based on a group of 687 participants from a variety of occupations and organizational levels, who took the WPI between November 1, 2006 and December 15, 2006. Table 1 shows the distribution of the sample across specific occupations, and Table 2 shows the distribution of the sample across specific organizational levels.

Table 1 Percentage of Participants by Occupation (*N* = 687)

Occupation	Percentage of Total Sample
Customer Service Representative	16.2
Project Manager	9.9
Manufacturing and Operations Occupations	9.0
Information Technology Occupations	6.4
Sales Representative/Non-Retail	6.1
Administrative Assistant	6.0
Researcher	4.7
Human Resources Occupations	3.1
Consultant	2.8
Teaching Occupations	2.8
Accountant	1.9
Financial Analyst	1.2
Other	29.9

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Table 2 Percentage of Participants by Organizational Level (*N* = 687)

Organizational Level	Percentage of Total Sample
Professionals/Individual Contributors	31.3
Managers	14.4
Customer Service/Retail Sales	13.7
Executives and Directors	12.5
Administrative/Clerical	9.8
First-line Supervisors	5.2
Other	13.1

Of the participants reporting gender, 251 (36.6%) were males and 434 (63.4%) were females. Out of the participants who provided information regarding their highest educational qualifications, 185 (27.5%) reported having a master's degree or higher qualification, 48 (7.1%) reported having done some post-graduate work, 182 (27.0%) reported having a bachelor's degree, 170 (25.3%) reported having some college, 86 (12.8%) reported having a high school diploma or GED, and 2 (0.3%) reported having some high school. Participants reported race/ethnic group information as follows: 457 (66.7%) White (non-Hispanic), 42 (6.1%) Black/African American, 159 (23.2%) Hispanic/Latino(a), 10 (1.5%) Asian/Pacific Islander, 3 (0.4%) Native American, and 14 (2.0%) Other. Of the participants reporting age, 289 (42.6%) were below 40 years of age and 390 (57.4%) were 40 years of age and above.

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Evidence of Reliability

The reliability of an assessment tool refers to the consistency of scores obtained under the theoretical concept of the repeated testing of the same individual on the same test under identical conditions (including no changes to the individual). Because in practice this can never be done, various estimates of reliability can be obtained. The reliability of a test is expressed as a correlation coefficient that can range from .00 to 1.00. A perfectly reliable test would have a reliability coefficient of 1.00, and a completely unreliable test would have a reliability coefficient of .00.

A commonly used indicator of the reliability of a test is coefficient alpha (Cronbach, 1970). Coefficient alpha yields a reliability estimate of internal consistency by examining the homogeneity of the questions within a test. The median coefficient alpha for the WPI scales was .76. As shown in Table 3, 16 of the 17 WPI scales had alphas higher than .70. One scale, Analytical Thinking, had an alpha less than .70, at least partially attributable to the shortness of the scale (8 items) and the relatively broad range of content it covers (e.g., inquisitiveness, analyticity, systematicity, open-mindedness, etc.). These reliability coefficients demonstrate that overall, the reliability of the WPI is very good when interpreted in light of the relative shortness of the scales (8 to 12 items each).

Evidence of Validity

Validity refers to the degree to which specific data, research, or theory support the interpretation of test scores entailed by proposed uses of tests (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 1999). Validity is a unitary concept. It is the extent to which all the accumulated evidence supports the intended interpretation of test scores for the proposed purpose (AERA, et al.). “Validity is high if a test gives the information the decision maker needs” (Cronbach, 1970). Several sources of validity evidence are discussed next in relationship to the WPI.

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Table 3 Alpha Reliability Coefficients for WPI Scales (*N* = 687)

Scale	Number of Items	Alpha
Achievement/Effort	11	0.70
Adaptability/Flexibility	10	0.79
Analytical Thinking	8	0.60
Attention to Detail	10	0.79
Concern for Others	11	0.75
Cooperation	12	0.73
Dependability	9	0.72
Independence	9	0.74
Initiative	10	0.77
Innovation	10	0.81
Integrity/Dutifulness	9	0.71
Leadership Orientation	10	0.80
Persistence	9	0.76
Self-Control	9	0.75
Social Orientation	10	0.78
Stress Tolerance	10	0.76
Unlikely Virtues	10	0.76

Evidence Based on Test Content

In an employment setting, evidence based on test content should be established by demonstrating that the jobs for which the test will be used require the characteristics that the test assesses. A main advantage of the WPI is that it directly assesses work styles required in many jobs and occupations in the U.S. economy (Borman, Kubisiak, & Schneider, 1999). In addition, the Occupational Information Network (O*NET®) website (http://online.onetcenter.org) provides detailed information on the work styles (as well as knowledge, skills, abilities, etc.) necessary for successful performance in hundreds of occupations. The WPI How-To Guide, which can be accessed on Pearson's website, contains information on using the O*NET database to determine the most relevant WPI attributes for a particular job.

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Evidence of Convergent Validity

Convergent evidence is obtained when scores on a test relate to scores on other tests or variables that purport to measure similar traits or constructs (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999). Tables 4 through 6 present correlations from studies showing that WPI scores relate to scores on theoretically related scales from the Occupational Personality Questionnaire (Saville & Holdsworth, 1990) and the Hogan Personality Inventory (Hogan & Hogan, 1992) in an expected manner.

The Occupational Personality Questionnaire (OPQ) is a 260-item questionnaire that assesses 32 dimensions. The OPQ and WPI were administered to 79 individuals from various occupations and organizational levels, with the largest proportion from Operations occupations (27.8%) and the Individual Contributor/Professional organizational level (26.6%). Table 4 shows the OPQ dimensions that correlated highest with each of the 17 WPI scales. As shown, 11 of the 17 WPI scales correlated .6 or better with a similar OPQ dimension, and 16 of the 17 WPI scales correlated .5 or better with a similar OPQ dimension. Attention to Detail was the one WPI scale that correlated less than .5 with a similar OPQ scale (r = .39 with OPQ Detail Conscious).

Table 4 Correlations of WPI and OPQ Scales (*n* = 74)

WPI Scale	OPQ Scale	Correlation
Achievement/Effort		
	Achieving	.62**
	Evaluative	.58**
	Innovative	.53**
	Conceptual	.51**
Adaptability		
	Variety Seeking	.68**
	Innovative	.53**
	Conventional	-.53**
	Vigorous	.52**
	Achieving	.50**

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WPI Scale	OPQ Scale	Correlation
Analytical Thinking		
	Evaluative	.56**
	Innovative	.56**
Attention to Detail		
	Detail Conscious	.39**
Concern for Others		
	Caring	.56**
	Affiliative	.54**
Cooperation		
	Caring	.54**
Dependability		
	Conscientious	.52**
Independence		
	Variety Seeking	.63**
	Conventional	-.61**
	Innovative	.50**
Initiative		
	Variety Seeking	.67**
	Achieving	.66**
	Innovative	.61**
	Vigorous	.59**
	Conventional	-.54**
	Outgoing	.51**
Innovation		
	Innovative	.80**
	Conventional	-.60**
	Conceptual	.57**
	Variety-Seeking	.57**
	Achieving	.52**
Integrity/Dutifulness		
	Rule Following	.75**

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WPI Scale	OPQ Scale	Correlation
Leadership Orientation		
	Outspoken	.65**
	Controlling	.62**
	Worrying	-.60**
	Persuasive	.54**
	Innovative	.51**
	Socially Confident	.50**
Persistence		
	Conscientious	.56**
	Innovative	.52**
Self-Control		
	Tough Minded	.62**
	Social Desirability	.54**
Social Orientation		
	Outgoing	.75**
	Affiliative	.74**
	Socially Confident	.64**
Stress Tolerance		
	Tough Minded	.70**
	Relaxed	.58**
	Worrying	-.56**
	Socially Confident	.50**
Unlikely Virtues		
	Social Desirability	.70**

Note. All correlations shown are uncorrected. $^{**}p < .01$.

The Hogan Personality Inventory (HPI) is a 206-item measure of normal personality that contains seven primary scales and 41 sub-scales or Homogenous Item Composites (HICs). The HPI and WPI were administered to 92 individuals from various occupations and organizational levels, with the largest proportion from project manager/coordinator occupations (17.4%) and the director organizational level (32.6%). Table 5 shows the HPI dimensions that correlated highest with each of the 17 WPI scales. All relationships shown in Table 5 are consistent with interpretation of the WPI scales and the dimensions measured by the HPI.

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Table 5 Correlations of WPI and HPI Scales (*n* = 99)

WPI Scale	HPI Scale	Correlation
Achievement/Effort		
	Leadership	.41**
Adaptability		
	Ambition	.43**
	Leadership	.42**
	Sales Potential	.42**
Analytical Thinking		
	Intellectance	.40**
Attention to Detail		
	Mastery	.32**
Concern for Others		
	Service Orientation	.57**
	Empathy	.55**
	Likeability	.48**
	Virtuous	.44**
Cooperation		
	Service Orientation	.56**
	Empathy	.49**
	Virtuous	.48**
	Likeability	.42**
Dependability		
	Mastery	.43**
Independence		
	Leadership	.55**
	Ambition	.52**
Initiative		
	Leadership	.46**
	Ambition	.43**
Innovation		
	Generates Ideas	.60**
	Experience Seeking	.46**
	Sales Potential	.44**
	Intellectance	.42**
	Not Spontaneous	-.40**
Integrity/Dutifulness		
	Prudence	.42**

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WPI Scale	HPI Scale	Correlation
Leadership Orientation		
	Ambition	.60**
	Leadership	.56**
	Sales Potential	.52**
	No Social Anxiety	.50**
	Sociability	.43**
	Competitive	.40**
Persistence		
	Mastery	.32**
	Even-tempered	.32**
Self-Control		
	Even-tempered	.61**
	Adjustment	.58**
	Impression Management	.52**
	Service Orientation	.51**
	Prudence	.49**
	Virtuous	.49**
	Empathy	.47**
	Stress Tolerance	.46**
	Not Anxious	.43**
	Moralist	.41**
	Exhibitionistic	-.41**
Social Orientation		
	Sales Potential	.74**
	Sociability	.69**
	Likes People	.60**
	Likes Parties	.57**
	No Social Anxiety	.55**
	Likes Crowds	.52**
	Entertaining	.50**
	Ambition	.45**
	Likeability	.45**
	Exhibitionistic	.41**
	Experience Seeking	.40**
	Trusting	.41**

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WPI Scale	HPI Scale	Correlation
Stress Tolerance		
	Not Anxious	.60**
	Stress Tolerance	.57**
	Adjustment	.56**
	Calmness	.45**
	Empathy	.40**
	Service Orientation	.40**
Unlikely Virtues		
	Moralist	.49**
	Service Orientation	.48**
	Virtuous	.48**

Note. All correlations shown are uncorrected. **p < .01.

Because the WPI scales are designed to be somewhat narrower than HPI primary scale scores (but generally broader than the HPI HICs), we also examined prediction of HPI primary scale scores using a multiple correlation approach. WPI scales had multiple correlations of .7 or better with 5 of the 7 the primary HPI scales, and .6 or better with 6 of the 7 primary HPI scales. HPI School Success was the one primary scale that had a multiple correlation of less than .5 with the WPI (R = .51).

Table 6 Multiple Correlations of WPI and HPI Primary Scales (n = 99)

HPI Primary Scale	WPI Multiple Correlation
Adjustment	.70**
Ambition	.72**
Sociability	.75**
Likeability	.72**
Prudence	.73**
Intellectance	.65**
School Success	.51**

Note. All correlations shown are uncorrected. **p < .01.

We also evaluated the relationship between the WPI Unlikely Virtues scale and the 13-item short form (Reynolds, 1982) of the Marlowe-Crowne Social Desirability scale (Crowne & Marlowe, 1960). The WPI Unlikely Virtues scale was designed to identify individuals who present an overly favorable image of themselves in responding to

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questions. Similarly, the Marlowe-Crowne Social Desirability scale was designed to identify the extent to which individuals respond to questions in a socially approved manner (Crowne & Marlowe, 1960). Scores on the two scales correlated .67, indicating a high degree of relationship between them.

Evidence Based on Test-Criterion Relationships

Criterion-related validity evidence addresses the inference that individuals who score better on tests will be successful on some criterion of interest. Criterion-related validity evidence indicates the statistical relationship (e.g., for a given sample of job applicants or incumbents) between scores on the test and one or more criteria, or between scores on the test and independently obtained measures of subsequent job performance. By collecting test scores and criterion scores (e.g., job performance ratings, grades in a training course, supervisor ratings), one can determine how much confidence may be placed in using test scores to predict job success. Typically, correlations between criterion measures and scores on the test serve as indexes of criterion-related validity evidence.

A project conducted by Pearson (2007) provides evidence for the criterion-related validity of the WPI. In the study, we examined the relationship between WPI scores and on-the-job performance of incumbents in various occupations. Job performance was defined as supervisory ratings on behaviors and metrics determined through research to be important to many jobs in the U.S. Aspects of job performance rated included work style behaviors (for 16 work styles), behaviors reflecting intellectual capacity (e.g., ability to learn quickly), absenteeism, tardiness, overall performance, overall potential, and overall rank relative to employees in a similar role. Relationships between WPI scores and job performance were analyzed for a group of directors and managers combined, managers, customer service representatives, and project managers. Table 7 shows a summary of key findings by group.

Overall, the results clearly show that WPI scales are related to on-the-job performance of incumbents. As shown, at least one WPI scale correlated .21 or higher with overall performance, overall potential, overall ranking, and/or tardiness in each of the four groups. Scales that correlate .21 and higher with job performance are generally “likely to be useful” based on U.S. Department of Labor guidelines (1999).

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Appendixes A through E present additional correlations between WPI scales and job performance ratings.

Table 7 Correlations of WPI Scales With Job Performance Ratings

Group	WPI Scale	Job Performance Indicator	Validity Coefficient
Directors and Managers (*n* = 93)	Innovation	Overall Performance	.23*
	Concern for Others	Overall Performance	.22*
	Concern for Others	Overall Potential	.21*
	Analytical Thinking	Overall Ranking Relative to Peers	-.21*
Managers (*n* = 57)	Persistence	Overall Performance	.34**
	Self-Control	Overall Performance	.29*
	Leadership Orientation	Overall Performance	.24
	Analytical Thinking	Overall Potential	.32*
	Analytical Thinking	Overall Ranking Relative to Peers	-.36**
Customer Service Representatives (*n* = 74)	Dependability	Tardiness	-.38**
Project Managers (*n* = 47)	Self-Control	Overall Performance	.27
	Concern for Others	Overall Performance	.22
	Self-Control	Overall Potential	.30*
	Adaptability/Flexibility	Overall Potential	.23
	Innovation	Overall Potential	.23
	Dependability	Tardiness	-.29*

Note. For tardiness and overall rank, lower rating scores indicated better performance (i.e., less tardiness and higher rank). All correlations shown are uncorrected. *$p < .05$; **$p < .01$.

Evidence Based on Group Differences

Tables 8 and 9 show evidence of the WPI's validity based on group differences within the work styles comprising the WPI. These differences were consistent with job requirements and expectations of incumbent characteristics for the groups tested. For example, sales representative was the highest scoring occupational group on Social Orientation, customer service representative was the highest scoring on Concern for Others, and Information Technology (IT) Occupations was the highest scoring on Analytical Thinking. In contrast, sales representative was the lowest scoring

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occupational group on Attention to Detail, IT Occupations the lowest scoring on Concern for Others, and Researchers the lowest scoring on Social Orientation.

Table 8 Highest and Lowest Scoring Occupations by WPI Scale

Scale	Highest Scoring Occupation	Lowest Scoring Occupation	*d*	*p*
Achievement/Effort	Researcher	Administrative Assistant	0.68	.0050
Adaptability/Flexibility	Sales Representative (non-retail)	Customer Service Representative	0.53	0059
Analytical Thinking	Information Technology Occupations	Operations Occupations	0.85	.0001
Attention to Detail	Administrative Assistant	Sales Representative (non-retail)	0.78	.0007
Concern for Others	Customer Service Representative	Information Technology Occupations	0.83	<.0001
Cooperation	Customer Service Representative	Project Managers/ Coordinators	0.82	<.0001
Dependability	Customer Service Representative	Sales Representative (non-retail)	0.69	.0002
Independence	Sales Representative (non-retail)	Customer Service Representative	0.92	<.0001
Initiative	Sales Representative (non-retail)	Customer Service Representative	0.77	<.0001
Innovation	Researcher	Operations Occupations	0.68	0.0037
Integrity/Dutifulness	Customer Service Representative	Project Managers/ Coordinators	0.95	<.0001
Leadership Orientation	Sales Representative (non-retail)	Researcher	0.80	.0010
Persistence	Customer Service Representative	Sales Representative (non-retail)	0.33	.0693
Self-Control	Administrative Assistant	Sales Representative (non-retail)	0.43	.0539
Social Orientation	Sales Representative (non-retail)	Researcher	0.99	<.0001
Stress Tolerance	Sales Representative (non-retail)	Researcher	0.51	.0319

Note. Occupations analyzed included Administrative Assistant (*n* = 41), Customer Service Representative (*n* = 111), Information Technology Occupations (*n* = 44), Operations Occupations (*n* = 44), Project Managers/Coordinators (*n* = 68), Researchers (*n* = 32), and Sales Representatives (*n* = 42).

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Table 9 Highest and Lowest Scoring Organizational Levels by WPI Scale

Scale	Highest Scoring Organizational Level	Lowest Scoring Organizational Level	*d*	*p*
Achievement/Effort	Directors	Administrative/ Clerical	1.02	<.0001
Adaptability/Flexibility	Executives	Customer Service/ Retail Sales	0.68	0.0011
Analytical Thinking	Executives	Administrative/ Clerical	1.06	<.0001
Attention to Detail	Administrative/ Clerical	Executives	1.29	<.0001
Concern for Others	Customer Service/ Retail Sales	Directors	1.08	<.0001
Cooperation	Customer Service/ Retail Sales	Executives	0.91	<.0001
Dependability	Customer Service/ Retail Sales	Executives	1.11	<.0001
Independence	Executives	Customer Service/ Retail Sales	1.89	<.0001
Initiative	Directors	Customer Service/ Retail Sales	1.17	<.0001
Innovation	Directors	Administrative/ Clerical	0.81	<.0001
Integrity/Dutifulness	Customer Service/ Retail Sales	Executives	1.23	<.0001
Leadership Orientation	Executives	Administrative/ Clerical	1.59	<.0001
Persistence	Customer Service/ Retail Sales	Executives	0.35	.1179
Self-Control	Directors	Managers	0.30	.0810
Social Orientation	Directors	Administrative/ Clerical	0.66	.0004
Stress Tolerance	Executives	Administrative/ Clerical	0.75	.0007

Note. Organizational levels analyzed included Executives (*n* = 31), Directors (*n* = 56), Managers (*n* = 101), Professionals/Individual Contributors (*n* = 217), First-line Supervisors (*n* = 40), Administrative/Clerical (*n* = 67), and Customer Service/Retail Sales (*n* = 95).

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Evidence Based on Internal Structure

The pattern of correlations among the **WPI** scales was generally consistent with theoretical expectations, providing additional evidence that the scales assess the work styles intended. For example, as shown in Table 10, Stress Tolerance correlated .55 with Adaptability/Flexibility and .53 with Self-Control. Achievement/Effort correlated .46 with Persistence, Dependability correlated .47 with Attention to Detail, and Innovation correlated .44 with Analytical Thinking.

The **WPI** scales also appear to be fairly independent. For example, Analytical Thinking and Achievement/Effort showed no significant relationship to Concern for Others, and although Innovation and Analytical Thinking were related (r = .44), they were not so highly correlated as to suspect whether the two work styles were measuring the same construct. Two correlations that did exceed expected values were between Initiative and Adaptability (r = .67), and between Concern for Others and Cooperation (r = .69). Continued study of these variables is necessary to ensure that they are measuring independent constructs.

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Table 10 WPI Scale Intercorrelations (*N* = 687)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Achievement/Effort	1.00																
2. Adaptability/Flexibility	.43	1.00															
3. Analytical Thinking	.38	.30	1.00														
4. Attention to Detail	.20	- .05	.08	1.00													
5. Concern for Others	.01	.12	.01	.12	1.00												
6. Cooperation	.12	.21	.07	.22	.69	1.00											
7. Dependability	.31	.20	.03	.47	.22	.30	1.00										
8. Independence	.22	.36	.26	- .31	- .13	- .15	- .13	1.00									
9. Initiative	.58	.67	.34	.11	.06	.18	.29	.35	1.00								
10. Innovation	.39	.49	.44	- .06	.07	.12	- .02	.41	.47	1.00							
11. Integrity/Dutifulness	.09	.05	- .05	.35	.30	.43	.46	- .35	.14	- .10	1.00						
12. Leadership Orientation	.44	.49	.30	- .08	- .18	- .10	.12	.36	.53	.37	- .07	1.00					
13. Persistence	.46	.43	.21	.40	.20	.32	.60	.04	.55	.25	.39	.29	1.00				
14. Self-Control	.14	.28	.15	.12	.32	.39	.41	- .01	.25	.08	.42	.09	.43	1.00			
15. Social Orientation	.29	.41	.11	- .09	.24	.27	.07	.11	.38	.26	.08	.48	.20	.15	1.00		
16. Stress Tolerance	.22	.55	.24	- .07	.08	.13	.21	.24	.42	.24	.16	.44	.37	.53	.31	1.00	
17. Unlikely Virtues	.04	.23	- .04	.28	.30	.32	.45	- .21	.18	- .04	.55	.11	.42	.53	.16	.33	1.00

Note. All correlations shown are uncorrected. Correlations greater than or equal in magnitude to .08 are $p < .05$; correlations greater than or equal in magnitude to .10 are $p < .01$.

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Faking and the WPI

It is well known that applicants sometimes attempt to present an overly favorable image of themselves on personality tests. For example, a meta-analysis of 51 studies found that the means of applicant samples on personality tests tend to be from 0.48 to 0.65 standard deviations above the means of incumbent samples (Viswesvaran & Ones, 1999).

A study was conducted to estimate the extent to which applicants will inflate their scores on the WPI in an attempt to make a favorable impression. The WPI was administered to a sample group of 53 employed adults who were asked to respond to the items in an honest and forthright manner ("honest" condition). Afterward, the same sample was instructed to respond to the same set of items as if they were in a job selection situation, seeking a position they very much wanted to acquire ("applicant" condition). Table 11 presents the means and standard deviations of each experimental administration, as well as the mean differences, t-scores, significance, and effect size of the differences between administrations.

Overall, scores on the majority of WPI scales increased significantly as expected. However, the amount of change was generally less than changes reported in similar studies on other personality inventories, with standardized mean score differences (i.e., d values) between .06 and .44 (median = .29).

Table 11 also shows correlations of WPI scores across the honest and applicant conditions. Across conditions, scores on 15 of the 17 scales correlated between moderate and high (i.e., between .51 and .73), suggesting general consistency in the rank order of people's scores on the scales. However, the correlations were not so high as to suggest a "one-to-one" relationship of scores. It appears that a few people were able to misrepresent their scores and make themselves appear more desirable than potentially better-qualified candidates.

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Using the Unlikely Virtues Scale

These results imply that while distortion may be less of a problem for the WPI than for other personality inventories, it is likely to occur to some extent. Therefore, we recommend that the WPI Unlikely Virtues (UV) scale be used to evaluate the forthrightness of the test taker during the assessment session and whether the assessment results are meaningful. The WPI UV scale accumulates responses to a set of ten self-effacing items and compares the individual's response patterns with those of the base sample. High percentile scores represent a higher probability of self-misrepresentation.

When scores are excessively high (i.e., higher than 90% of the standardization sample), the test user is advised to disregard WPI results and use other forms of analysis to come to their decisions concerning the test taker (see WPI User's Guide). In no case should the scores be used to make any decision besides the usability of WPI scores. Good candidates sometimes represent themselves to be more virtuous than they truly are and are nonetheless worthy candidates for an employer's selection or development initiatives. Unlikely Virtues scores simply define the usability of their WPI results.

Support for the Unlikely Virtues Scale as a Predictor of Faking

We calculated the extent to which each person inflated their score on each WPI scale between the honest and applicant conditions. Using the formula (WPI applicant condition score – WPI honest condition score), larger differences were assumed to indicate more score inflation and smaller differences less score inflation across conditions. Table 12 shows the correlation between Unlikely Virtues scores in the applicant condition with the amount of score inflation on each scale. UV applicant condition was used because it best represents the UV score obtained in a selection situation. As shown, UV predicted score inflation for 14 of 17 WPI scales, supporting its usefulness as a predictor of score misrepresentation.

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Table 11 WPI Score Differences Between Honest and Applicant Conditions (*n* = 53)

	"Honest" Mean	"Honest" *SD*	"Applicant" Mean	"Applicant" SD	Mean Difference	t	*p*	*d*	*r*
Achievement/Effort	32.4	3.5	33.5	3.8	1.09	2.84	0.00638	0.30	.71**
Adaptability/Flexibility	27.9	3.7	28.7	3.8	0.77	1.55	0.12620	0.21	.54**
Analytical Thinking	22.0	2.0	23.0	2.4	0.98	3.32	0.00166	0.44	.54**
Attention to Detail	27.2	3.0	28.0	3.1	0.79	2.14	0.03726	0.26	.61**
Concern for Others	30.2	3.2	30.3	3.4	0.19	0.51	0.61449	0.06	.66**
Cooperation	35.2	2.2	36.1	3.2	0.92	2.40	0.01999	0.34	.52**
Dependability	26.5	2.6	27.7	2.9	1.17	3.31	0.00173	0.43	.57**
Independence	23.6	2.9	24.4	3.1	0.75	2.30	0.02574	0.25	.68**
Initiative	28.6	3.4	29.8	3.9	1.19	2.68	0.00996	0.33	.61**
Innovation	24.3	2.8	24.8	2.8	0.49	1.46	0.15037	0.17	.62**
Integrity/Dutifulness	27.1	3.1	28.0	3.1	0.91	2.14	0.03687	0.29	.51**
Leadership Orientation	25.4	3.3	26.0	3.5	0.60	1.42	0.16258	0.18	.59**
Persistence	26.2	2.6	26.7	2.8	0.50	1.21	0.23295	0.19	.39**
Self-Control	24.0	3.4	24.8	3.6	0.77	2.13	0.03784	0.22	.73**
Social Orientation	24.0	3.0	25.1	3.5	1.11	2.59	0.01244	0.34	.54**
Stress Tolerance	25.5	3.2	27.0	3.8	1.54	2.63	0.01141	0.44	.27*
Unlikely Virtues	22.6	2.8	23.9	4.6	1.33	2.65	0.01061	0.35	.61**

Note. All correlations shown are uncorrected. *$p < .05$; **$p < .01$.

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Table 12 Correlation of Unlikely Virtues With Score Inflation Across "Honest" and "Applicant" Conditions (*n* = 53)

Score Inflation Measure	Correlation with Unlikely Virtues
Achievement/Effort Difference	.33*
Adaptability/Flexibility Difference	.46**
Analytical Thinking Difference	.45**
Attention to Detail Difference	.19
Concern for Others Difference	.27
Cooperation Difference	.35*
Dependability Difference	.45**
Independence Difference	.08
Initiative Difference	.50**
Innovation Difference	.35*
Integrity/Dutifulness Difference	.28*
Leadership Orientation Difference	.41**
Persistence Difference	.55**
Self-Control Difference	.41**
Social Orientation Difference	.62**
Stress Tolerance Difference	.54**
Unlikely Virtues Difference	.79**

Note. All correlations shown are uncorrected. Score inflation was calculated as (WPI applicant condition score – WPI honest condition score). For the Unlikely Virtues measure, applicant condition scores were used. *p < .05; **p < .01.

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Appendix A Overall Group (*n* = 400): Correlations of WPI Scales With Supervisors' Ratings

WPI Scale	Supervisor Rating	Validity Coefficient
Concern for Others		
	Concern for Others	.24**
Cooperation		
	Intellectual Capacity	-.21**
Independence		
	Innovation	.30**
	Analytical Thinking	.29**
	Achievement Orientation	.25**
	Intellectual Capacity	.25**
	Leadership Orientation	.25**
	Independence	.24**
Initiative		
	Initiative	.24**
	Leadership Orientation	.24**
	Achievement/Effort	.22**
Leadership Orientation		
	Leadership Orientation	.27**
Self-Control		
	Self-Control	.27**
	Stress Tolerance	.22**

Note. All correlations shown are uncorrected. Only correlations greater than or equal in magnitude to .21 are shown. All correlations shown in Appendix A are $^{**}p < .01$.

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Appendix B Directors and Managers (*n* = 93): Correlations of WPI Scales With Supervisors' Ratings

WPI Scale	Supervisor Rating	Validity Coefficient
Achievement/Effort		
	Intellectual Capacity	.22*
Analytical Thinking		
	Intellectual Capacity	.24*
	Overall Ranking Relative to Peers	-.21*
Concern for Others		
	Self-Control	.32**
	Cooperation	.29**
	Concern for Others	.28**
	Social Orientation	.26*
	Overall Performance	.22*
	Overall Potential	.21*
Cooperation		
	Dependability	-.23*
	Independence	-.22*
	Attention to Detail	-.21*
Independence		
	Intellectual Capacity	.30**
	Analytical Thinking	.27**
	Adaptability	.25*
	Innovation	.23*
	Leadership	.22*
Initiative		
	Intellectual Capacity	.22*
Innovation		
	Intellectual Capacity	.30**
	Leadership Orientation	.30**
	Analytical Thinking	.29**
	Innovation	.26*
	Adaptability	.24*
	Overall Performance	.23*
	Cooperation	.22*
	Self-Control	.22*
	Persistence	.21*

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WPI Scale	Supervisor Rating	Validity Coefficient
Integrity/Dutifulness		
	Innovation	-.24*
Leadership Orientation		
	Innovation	.35**
	Intellectual Capacity	.34**
	Adaptability	.32**
	Leadership Orientation	.30**
	Independence	.28**
	Analytical Thinking	.27**
	Achievement/Effort	.25*
	Persistence	.25*
Self-Control		
	Self-Control	.22*
	Cooperation	.22*
	Concern for Others	.21*
Stress Tolerance		
	Tardiness	-.21*
	Intellectual Capacity	.21*

Note. All correlations shown are uncorrected. Only correlations greater than or equal in magnitude to .21 are shown. For tardiness and overall rank, lower rating scores indicated better performance (i.e., less tardiness and higher rank).
*$p < .05$; **$p < .01$

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Appendix C Managers (*n* = 57): Correlations of WPI Scales With Supervisors' Ratings

WPI Scale	Supervisor Rating	Validity Coefficient
Achievement/Effort		
	Intellectual Capacity	.32*
	Leadership Orientation	.29*
	Analytical Thinking	.28*
	Achievement/Effort	.27*
	Persistence	.26
	Innovation	.25
	Adaptability	.22
	Initiative	.22
	Overall Performance	.21
	Overall Potential	.21
Adaptability		
	Adaptability	.30*
	Leadership Orientation	.26
	Analytical Thinking	.24
	Persistence	.24
	Tardiness	.24
	Absenteeism	.22
	Intellectual Capacity	.22
Analytical Thinking		
	Overall Ranking Relative to Peers	-.36**
	Overall Potential	.32*
	Innovation	.30*
	Leadership Orientation	.29*
	Achievement/Effort	.26
	Overall Performance	.25
	Persistence	.24
	Initiative	.23
	Analytical Thinking	.22
	Adaptability	.21
	Intellectual Capacity	.21
Attention to Detail		
	Attention to Detail	.22

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WPI Scale	Supervisor Rating	Validity Coefficient
Concern for Others		
	Cooperation	.42**
	Concern for Others	.38**
	Social Orientation	.37**
	Self-Control	.26
	Overall Performance	.25
	Overall Potential	.22
Dependability		
	Integrity/Dutiful	.25
Independence		
	Leadership Orientation	.29*
	Adaptability	.27*
	Analytical Thinking	.25
	Innovation	.24
	Tardiness	.24
	Intellectual Capacity	.22
Initiative		
	Analytical Thinking	.37**
	Intellectual Capacity	.35**
	Persistence	.34**
	Leadership Orientation	.33*
	Achievement/Effort	.31*
	Adaptability	.31*
	Innovation	.31*
	Overall Potential	.25
	Overall Ranking Relative to Peers	-.24
	Tardiness	.24
	Overall Performance	.22
Innovation		
	Leadership Orientation	.45**
	Analytical Thinking	.32*
	Innovation	.30*
	Intellectual Capacity	.30*
	Initiative	.27*
	Achievement/Effort	.26
	Persistence	.26
	Adaptability	.23

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WPI Scale	Supervisor Rating	Validity Coefficient
	Cooperation	.22
	Overall Performance	.22
	Independence	.21
Integrity/Dutifulness		
	Social Orientation	.43**
	Cooperation	.31*
	Concern for Others	.28*
	Initiative	.24
	Leadership	.22
	Overall Performance	.22
	Persistence	.21
Leadership Orientation		
	Innovation	.45**
	Adaptability	.42**
	Intellectual Capacity	.40**
	Leadership	.38**
	Analytical Thinking	.34**
	Independence	.34**
	Persistence	.33*
	Achievement/Effort	.29*
	Overall Performance	.24
	Overall Ranking Relative to Peers	-.23
	Dependability	.22
	Attention to Detail	.21
	Initiative	.21
	Overall Potential	.21
Persistence		
	Leadership	.35**
	Achievement/Effort	.34**
	Overall Performance	.34**
	Persistence	.32*
	Analytical Thinking	.31*
	Intellectual Capacity	.29*
	Adaptability	.26
	Initiative	.26
	Overall Potential	.26
	Innovation	.25

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WPI Scale	Supervisor Rating	Validity Coefficient
	Social Orientation	.22
	Overall Ranking Relative to Peers	-.21
Self-Control		
	Achievement/Effort	.36**
	Cooperation	.36**
	Persistence	.36**
	Analytical Thinking	.35**
	Intellectual Capacity	.34**
	Integrity/Dutifulness	.29*
	Overall Performance	.29*
	Concern for Others	.28*
	Social Orientation	.28*
	Independence	.27*
	Initiative	.27*
	Overall Potential	.26
	Self-Control	.26
	Dependability	.24
	Adaptability	.23
	Leadership Orientation	.23
Social Orientation		
	Tardiness	.26
Stress Tolerance		
	Intellectual Capacity	.27*
	Adaptability	.26
	Persistence	.24
	Analytical Thinking	.23
	Self-Control	.22
	Achievement/Effort	.21
	Leadership Orientation	.21
Unlikely Virtues		
	Persistence	.21

Note. All correlations shown are uncorrected. Only correlations greater than or equal in magnitude to .21 are shown. For tardiness and overall rank, lower rating scores indicated better performance (i.e., less tardiness and higher rank).
*p < .05; **p < .01

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Appendix D Customer Service Representatives (*n* = 74): Correlations of WPI Scales With Supervisors' Ratings

WPI Scale	Supervisor Rating	Validity Coefficient
Concern for Others		
	Achievement/Effort	-.24*
Cooperation		
	Achievement/Effort	-.22
	Persistence	-.22
Dependability		
	Tardiness	-.38**
	Dependability	.29*
Independence		
	Innovation	.33**
	Analytical Thinking	.31**
	Independence	.25*
	Intellectual Capacity	.24*
	Leadership Orientation	.22
Initiative		
	Leadership	.33**
	Initiative	.27*
	Persistence	.23*
	Innovation	.23*
Leadership Orientation		
	Integrity/Dutifulness	-.25*
Self-Control		
	Intellectual Capacity	-.28*
Social Orientation		
	Independence	-.36**
	Achievement/Effort	-.34**
	Attention to Detail	-.34**
	Overall Performance	-.31**
	Dependability	-.27*
	Integrity/Dutifulness	-.27*
	Persistence	-.26*
	Analytical Thinking	-.25*
	Intellectual Capacity	-.24*

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WPI Scale	Supervisor Rating	Validity Coefficient
Stress Tolerance		
	Cooperation	.27*
	Self-Control	.22
	Stress Tolerance	.21
Unlikely Virtues		
	Intellectual Capacity	-.23*
	Persistence	-.21

Note. All correlations shown are uncorrected. Only correlations greater than or equal in magnitude to .21 are shown. For tardiness, lower rating scores indicated less tardiness. *$p < .05$; **$p < .01$

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Appendix E Project Managers (*n* = 47): Correlations of WPI Scales With Supervisors' Ratings

WPI Scale	Supervisor Rating	Validity Coefficient
Achievement/Effort		
	Achievement/Effort	.25
	Initiative	.21
Adaptability		
	Achievement/Effort	.30*
	Leadership Orientation	.28
	Adaptability	.27
	Overall Potential	.23
	Initiative	.22
Analytical Thinking		
	Independence	-.28
	Attention to Detail	-.22
Attention to Detail		
	Innovation	-.26
	Integrity/Dutifulness	-.23
Concern for Others		
	Concern for Others	.43**
	Cooperation	.35*
	Social Orientation	.33*
	Stress Tolerance	.25
	Self-Control	.22
	Overall Performance	.22
Cooperation		
	Leadership Orientation	-.32*
	Attention to Detail	-.30*
	Intellectual Capacity	-.28
	Independence	-.26
	Concern for Others	.24
	Analytical Thinking	-.23
	Dependability	-.21
Dependability		
	Tardiness	-.29*

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WPI Scale	Supervisor Rating	Validity Coefficient
Independence		
	Adaptability	.37*
	Integrity/Dutifulness	.32*
	Innovation	.30*
	Leadership Orientation	.29*
	Achievement/Effort	.23
Initiative		
	Achievement/Effort	.26
	Leadership Orientation	.26
Innovation		
	Achievement/Effort	.25
	Leadership Orientation	.25
	Overall Potential	.23
Integrity/Dutifulness		
	Social Orientation	.29*
Leadership Orientation		
	Leadership Orientation	.55**
	Achievement/Effort	.38**
	Analytical Thinking	.24
	Innovation	.24
	Initiative	.23
Persistence		
	Leadership Orientation	.21
Self-Control		
	Cooperation	.57**
	Social Orientation	.54**
	Self-Control	.48**
	Stress Tolerance	.42**
	Concern for Others	.44**
	Intellectual Capacity	.35*
	Achievement/Effort	.34*
	Adaptability	.33*
	Analytical Thinking	.33*
	Persistence	.32*
	Overall Potential	.30*
	Overall Performance	.27

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WPI Scale	Supervisor Rating	Validity Coefficient
Stress Tolerance		
	Cooperation	.33*
	Intellectual Capacity	.31*
	Social Orientation	.30*
	Achievement/Effort	.26
	Leadership Orientation	.26
	Self-Control	.25
	Analytical Thinking	.22
	Adaptability	.21
Unlikely Virtues		
	Social Orientation	.40**
	Cooperation	.38**
	Overall Potential	.36*
	Concern for Others	.30*
	Overall Performance	.27
	Achievement/Effort	.26
	Analytical Thinking	.23
	Persistence	.21

Note. All correlations shown are uncorrected. Only correlations greater than or equal in magnitude to .21 are shown. For tardiness, lower rating scores indicated less tardiness. *$p < .05$; **$p < .01$

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