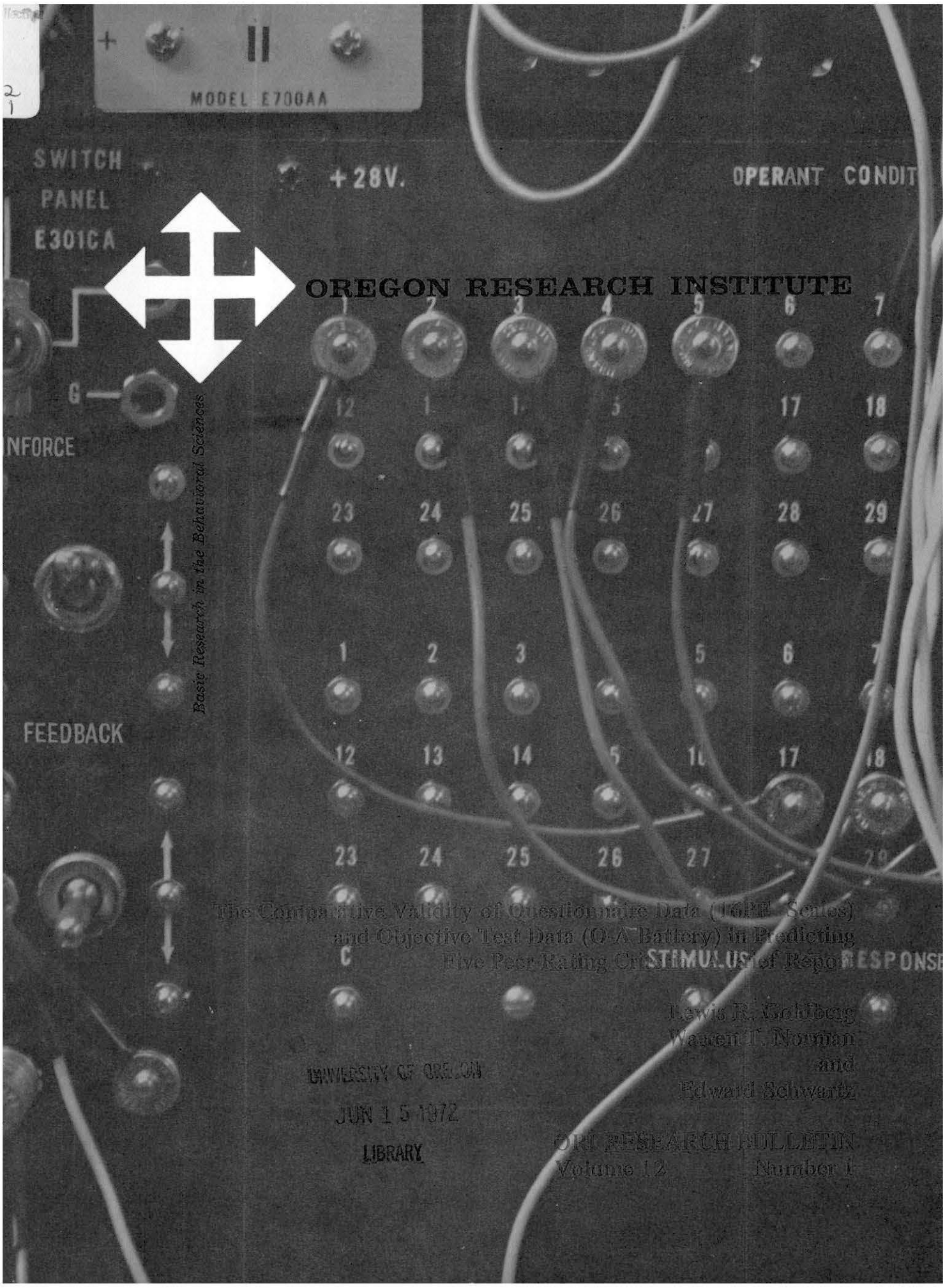

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THE COMPARATIVE VALIDITY OF QUESTIONNAIRE DATA (16PF SCALES) AND OBJECTIVE TEST DATA (O-A BATTERY) IN PREDICTING FIVE PEER-RATING CRITERIA: A BRIEF REPORT[1]

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Individual differences can be assessed in at least three different media, namely via Life (L) data, Questionnaire (Q) data, or Objective Test (T) data (see Cattell, 1957). The distinction between L-data and Q- or T-data is reasonably clear: L-data refers to behavior in situ--within the ongoing stream of life--while both Q- and T-data are constrained by experimental stimulation or laboratory control. Within the traditional psychometric paradigm, L-data is often assigned the critical role of the dependent variable or the criterion behavior which psychologists seek to predict, and these predictions are typically generated from measures based on either questionnaire or test data.

While the field of psychological assessment has become heavily saturated with personality questionnaires and inventories (see Goldberg, 1971), Cattell has consistently exhorted psychometricians to eschew Q-data and to concentrate on the development of objective personality tests. To this end, Cattell and his associates have constructed a multitude of such tests over the years and have included these measures, plus many devised by other investigators, in a series of factorial studies (see Cattell, 1957; Cattell & Warburton, 1967; Hundleby, Pawlik, & Cattell, 1965). The explicit rationale

for this research strategy is the assumption that objective tests eliminate many of the biases which presumably distort questionnaire responses (e.g., response sets and styles), and consequently that such tests will ultimately provide the most valid measures of important personality traits.

By 1955, Cattell had assembled a battery of objective tests, called the Objective-Analytic (O-A) Eighteen Factor Personality Test Battery, which was distributed by the Institute for Personality and Ability Testing (IPAT) as a preliminary research kit. This initial battery was probably not widely disseminated; perhaps because of its limited availability and the relatively high cost of using objective tests as compared to questionnaires, there have been very few reports of studies by investigators outside Cattell's laboratory comparing the validities of these objective tests with those obtained from questionnaire scales. The present report summarizes the results of one such preliminary comparison. This report, which is not intended for formal publication, is based upon data collected over a decade ago, from a sample of 82 male subjects who were administered a version of the O-A Battery which included 30 different tests and which yielded 57 different test scores. At the present time, the number of tests cataloged by Cattell and Warburton (1967) numbers over 400, yielding well over 2,000 test scores. Consequently, the results presented in this report must be understood as limited to only a small subset of the total set of objective tests currently available.

Procedure

Overview

As part of a larger study (see Norman, 1963), 82 male undergraduate students from nine fraternity houses at the University of Michigan were administered thirty tests from the 1955 edition of the O-A Battery, plus Forms A and B of the 16 Personality Factor Questionnaire (16PF). In addition, each subject was rated by 7 to 11 close associates on each of 20 bipolar rating scales, four scales tapping each of the five major peer-rating factors found in previous L-data analyses (see Norman, 1963; Tupes & Christal, 1961). These peer ratings were averaged across raters and across the four defining scales to provide five peer-rating composite scores which were used as the criterion variables in the present study. The present analyses are focused on the zero-order and multiple correlations between the five peer-rating criteria and the 16PF (Q-data) and O-A Battery (T-data) predictors.

Subjects

The subjects were primarily college seniors, all males, who lived in fraternity houses located near the campus of the University of Michigan. All subjects were paid for their participation in the study. Four testing sessions were conducted, in the same order for all subjects. The first session was held in each of the fraternity houses, where participating members of the fraternity sat around a table in full view of one another and rated each other on the 20 peer-rating scales. Between the first and the second testing sessions, all subjects completed Forms A and B of the 16PF, plus other questionnaires not analyzed in the present study. Subsequently, each subject was administered the O-A Battery during three testing sessions, each of three hours in duration, each session separated by one week.

The Five Peer-Rating Criteria

The 20 peer-rating scales used in this study are presented in Table A of the Appendix. These 20 bipolar rating scales, four marking each of five orthogonal rating factors, were developed initially from the comprehensive collation of trait names in the English language (Allport & Odbert, 1936), which was subsequently reduced, clustered, and factor analyzed by Cattell (1947, 1957), and more recently studied intensively by other investigators, including Tupes and Christal (1961), Norman (1963), and Norman and Goldberg (1966). These five peer-rating factors, which served as criterion variables in the present project, have been named as follows: (I) Surgency or Extroversion; (II) Agreeableness; (III) Dependability or Conscientiousness; (IV) Neuroticism vs. Emotional Stability; and (V) Culture.

The peer ratings were carried out separately within each of nine groups (one of seven members, two of eight, two of nine, three of ten, and one of eleven), the members of each group having lived together in close association for periods of at least one to three years. Within each rating group, every subject rated all of the others in his group on each of the 20 bipolar scales, using a forced distribution: subjects selected a designated number of their group (approximately one-third) as being most highly characterized by the positive pole of the scale, then chose the same number as being closest to the negative pole, and finally placed the remaining members in a "middle" category. All members of the group were rated on one scale before the rater proceeded to the next scale. The two poles of each scale were described on the rating forms, and the four scales marking a particular peer-rating factor were presented on every fifth page of the rating booklet.

The 16 Personality Factor Questionnaire

Both Forms A and B of the 16PF were completed by each of the 82 subjects, working alone in their fraternity houses, between the first and the second testing sessions. For a description of the scales included in this inventory, see Cattell, Eber, and Tatsuoka (1970).

The Objective-Analytic Test Battery

From the 1955 version of the O-A Battery, all tests which were already prepared for, or could be adapted for, paper-and-pencil group testing were first administered to 24 paid college subjects (other subjects than those included in the present study). The aims of this pretest were: (a) to familiarize the test administrator (Schwartz) with the battery, (b) to develop scoring stencils and keys, (c) to simplify and clarify the test instructions, (d) to estimate the time required for each test in the battery, and (e) to eliminate from the final test battery any of the tests that either presented unusual difficulties in administration and/or scoring or that provided scores which did not differentiate among college subjects. On the basis of the pretest, nine test variables were eliminated from the final battery, two because of scoring ambiguity and seven because of poor discrimination in the pretest sample. The remaining 57 O-A Battery measures, scored from 30 tests, are listed in Table B of the Appendix; the variable and test names are those used in Cattell and Warburton (1967). Of the 30 tests, 16 provided only one scoring variable, 8 provided two variables, four provided three variables, and two provided four or more variables.

Results

Within-Media Analyses

While the original peer-rating factors were orthogonal (Tupes & Christal, 1961), there are typically some moderate intercorrelations among the composite scores formed by averaging across the four marker scales for each factor (see Norman, 1963). The intercorrelations among these peer-rating composite scores in the present study are listed in Table 1. The highest of these correlations (r = .46) was between factors II (Agreeableness) and IV (Emotional Stability). While three of the other nine correlations were significantly greater than zero ($p < .05$), they were all of small size.

Insert Table 1 about here

The intercorrelations among the 16PF scales, computed separately within Forms A and B, are presented in Table C of the Appendix, and the between-form intercorrelations are presented in Table D of the Appendix. In the main diagonal of Table D are the parallel-form equivalence correlations for each of the 16PF scales. These values are reproduced in Table 2, along with the estimated reliabilities of each of the 16PF composite scores when Forms A and B are combined. The parallel-form correlations, which averaged .37, ranged from a low of -.09 for Factor N (Artless vs. Shrewd) to a high of .71 for Factor H (Shy vs. Venturesome). These equivalence coefficients are somewhat

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Insert Table 2 about here
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lower than, though highly correlated with, those reported in the 16PF Handbook (see Cattell, Eber, & Tatsuoka, 1970: Table 5.3, p. 33). As has been pointed out

Table 1

Intercorrelations among the Five Peer-Rating Factors

(N = 82)

	Peer-Rating Factor				
	I	II	III	IV	V
I	-	.19	-.28*	-.03	.25*
II		-	.14	.46**	.10
III			-	-.06	.22*
IV				-	-.16
V					-

*$p < .05$

**$p < .01$

Table 2

Correlations between 16PF Forms A and B

and Estimated Reliability of the Composite Scores

($\underline{N}$ = 82)

Scale	Correlation A vs. B	Reliability A+B*
A	.50	.67
B	.37	.54
C	.37	.54
E	.40	.57
F	.54	.70
G	.37	.54
H	.71	.83
I	.30	.46
L	.53	.69
M	.23	.37
N	-.09	--
O	.32	.48
Q1	.14	.25
Q2	.29	.45
Q3	.36	.53
Q4	.57	.73

*Estimated by the Spearman-Brown formula:

$$\hat{r} = \frac{2r_{AB}}{1+r_{AB}}$$

repeatedly in reviews of the 16PF (see Buros, 1970), a number of 16PF scales have consistently higher between-form correlations with other scales than with those to which they are supposedly equivalent.

The means, standard deviations, and intercorrelations among the composite 16PF scores (Forms A and B combined) are presented in Table 3. Almost 15% of these 16PF scale intercorrelations were greater than .40, and some of them were quite high (e.g., the correlation between Factors O and Q4 was .73, and that between Factors C and Q4 was -.68).

Insert Table 3 about here

The intercorrelations among the 57 O-A Battery variables are presented in Table E of the Appendix. Of these 1,596 correlations, less than 4% were greater than .30, and only 1% were above .40 (most of the latter being instances of two variables scored from the same test). A number of factor analyses of these 57 variables, each employing some different criterion for estimating the number of factors or for rotating the resulting factors, all produced quite similar results. A representative factor matrix, based upon 18 factors rotated to an oblique simple structure criterion using the BMDX72 computer program, is reproduced in Table F of the Appendix, and the intercorrelations among these 18 oblique factors are presented in Appendix Table G. All of the intercorrelations among the oblique factors were of trivial magnitude, none being significantly greater than zero ($p < .05$). Moreover, the few variables with high loadings on each factor were often those scored either from the same test or from two very similar tests. For example, variables scored from the same test provided the highest loadings on seven of the 18 factors (Factors 1, 3, 4, 5, 7, 9, and 13).

Table 3

Means, Standard Deviations, and Intercorrelations among the 16PF Scales (Combined A and B Forms)

(N = 82)

	A	B	C	E	F	G	H	I	L	M	N	O	Q1	Q2	Q3	Q4
A		.03	-.05	-.01	.18	-.11	.26*	.18	.04	-.19	.12	.05	-.07	-.36**	-.03	.02
B			.03	.10	.18	-.20	.01	-.02	-.13	.12	.32**	.01	.13	.12	-.21	-.02
C				.10	.23*	-.05	.42**	-.18	-.53**	-.32**	.28**	-.64**	.07	-.11	.46**	-.68**
E					.51**	-.27*	.48**	.27*	-.07	.29**	.27*	-.22*	.10	.02	-.15	-.03
F						-.28**	.47**	.27*	-.05	.14	.11	-.18	.07	-.24*	-.09	-.08
G							-.11	-.36**	.26*	-.27*	-.01	.04	-.32**	-.11	.25*	.09
H								-.02	-.33**	-.14	.37**	-.59**	.07	-.43**	.20	-.39**
I									-.06	.46**	-.15	.23*	-.02	.00	-.19	.18
L										.27*	-.14	.48**	-.15	.03	-.35**	.55**
M											-.20	.36**	.25*	.33**	-.37**	.36**
N												-.38**	.20	-.03	.24*	-.37**
O													-.17	.19	-.55**	.73**
Q1														.32**	-.13	-.15
Q2															-.12	.18
Q3																-.55**
Q4																
Mean	18.9	19.1	32.0	28.0	27.8	22.5	26.1	20.1	17.3	22.0	23.2	20.7	21.4	20.5	19.5	27.5
σ	6.7	2.8	6.0	5.8	7.5	5.0	8.9	5.4	5.9	5.6	3.9	6.4	4.3	5.1	5.4	7.4

*$p < .05$

**$p < .01$

Across-Media Analyses: 16PF vs. O-A Battery

The correlations between each of the 16PF scales and the 57 variables scored from the O-A Battery are presented in Table H of the Appendix. Of these 912 correlations, less than 4% were greater than .30 and only two (M.I. 246 from the O-A Battery with 16PF Factors G and Q1) were greater than .40. About 11% of these correlations were significantly greater than zero at $p < .05$, and about 5% were significant at $p < .01$. Of the 16PF scales, Factor M provided the highest number of significant correlations (13) with the O-A Battery variables, while Factor Q2 provided the least (2). From the O-A Battery, M.I. 246 provided the highest number of significant correlations (6), while 15 of the O-A Battery variables were not significantly correlated with any of the 16PF scales.

Across-Media Analyses: Prediction of the Peer-Rating Criteria

The zero-order correlations between each of the five peer-rating factors and the scale scores from the two separate forms of the 16PF, as well as from the composite scores (Forms A and B combined), are presented in Table I of the Appendix. Analogous correlations based upon the 57 O-A Battery variables are presented in Appendix Table J, and those based upon factor scores from the 18 oblique O-A Battery factors are presented in Appendix Table K. The significant 16PF and O-A Battery correlates of the five peer-rating factors are summarized in Tables 4 and 5. Perhaps the most striking

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Insert Tables 4 and 5 about here

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aspect of Table 4 is the differential predictability among the five peer-rating factors. Only a chance-level sprinkling of variables provided significant correlations with Factors II (Agreeableness) and IV (Neuroticism vs.

Table 4

Significant Correlates of the Five Peer-Rating Factors

(N = 82)

	Peer-Rating Factor				
16PF (Combined Forms A + B)	I	II	III	IV	V
F	.27		-.36		
G	-.29				-.34
H	.26				
I					.33
M	.25		-.31		.38
O				-.24	
O-A Battery (57 variables)					
MI 7			-.24		
MI 9					.23
MI 25a					.26
MI 87					-.27
MI 102					.26
MI 117					.47
MI 145a		.23			
MI 159a	-.33				-.30
MI 167a					.39
MI 206			-.25		
MI 219					.24
MI 237				.23	
MI 246	-.25		.23		-.31
MI 275			-.22		
MI 316		.25			
O-A Battery (18 factor scores)					
Factor 9			.22		
Factor 10	.38				.55
Factor 11					.29
Factor 15					.25
Factor 18			.24		

Table 5

Significant O-A Battery Correlates of the Five Peer-Rating Factors (N = 82)

e- on	Variable's Master Index Number	Test Number	Test Name	Variable's Description
-Rating Factor I: Surgency				
3	159a	T19	Time Estimates for Everyday Tasks	greater variability of other-referent time estimates
5	246	T34	Authoritarianism: Personal Values	little submission
e-Rating Factor II: Agreeableness				
5	316	T13	Criticalness of Self and Other Persons	more fluency concerning own relative to other people's personal characteristics
3	145a	T17	Aspiration Level in Coding	higher responsiveness of aspiration level to performance
-Rating Factor III: Dependability				
5	206	T37	Gottschaldt: Perceptual Analysis	greater accuracy
4	7	T2	Gestalt Closure	faster speed of closure
3	246	T34	Authoritarianism: Personal Values	little submission
2	275	T30	Arithmetical Reasoning	higher total correct
-Rating Factor IV: Neuroticism				
1	237	T42	Mazes (Pencil)	faster speed on difficult relative to easy mazes
-Rating Factor V: Culture				
	117	T27	Highbrow Tastes	more highbrow tastes
	167a	T9	Opinion Inventory X	better immediate memory
	246	T34	Authoritarianism: Personal Values	little submission
	159a	T19	Time Estimates for Everyday Tasks	greater variability of other-referent time estimates
	87	T6	Reading Tempo and Memory for Interesting Material	better recall of emotionally interesting relative to dry material
	25a	T15	Memory for Emotional Words	better recall of emotional relative to nonemotional words
	102	T18	Aphorism Acceptance	greater tendency to consider remarks "obvious"
	219	T41	Honesty in Admitting Frailties	more frailties admitted
	9	T50	Ideomotor Tempo	faster tempo

Emotional Stability). At the other extreme, there were a considerable number of significant predictors of Factor V (Culture), including some (e.g., M.I. 117: Highbrow tastes) with fairly strong associations. Peer-rating Factors I (Surgency or Extraversion) and III (Dependability or Conscientiousness) were more modestly associated with these 16PF and O-A Battery variables.

The variables listed in Table 4 were included in a series of stepwise multiple-regression analyses, and the results are summarized in Table 6.

Insert Table 6 about here

For each peer-rating criterion in turn, three regression analyses were carried out, using, respectively, (a) those 16PF scales which were significantly associated with that criterion, (b) the significantly associated O-A Battery variables, and (c) the combined set of significant correlates from both the 16PF and the O-A Battery. Only the first four steps of each analysis are presented. These results--which have not yet been cross-validated--are presented purely for illustrative purposes, and the size of these multiple correlations should be considerably lower if the same equations were applied to new samples. In general, the results based upon the multiple-regression analyses follow the same pattern of differential predictability as those displayed in Table 4.

The findings presented so far, however, do not bear directly on the central problem under study, namely the comparative validity of Q-data (16PF scales) vs. T-data (O-A Battery measures) in predicting the five peer-rating criteria. To answer this question, the factor scores based upon the 18 O-A Battery oblique factors were compared with the composite 16PF scores (Forms

Table 6

Results of the Stepwise Multiple-Regression Analyses: Selected 16PF Scales (Forms A+B) and Selected O-A Battery Variables Which Were Significantly Correlated with the Peer-Rating Criteria (N = 82)

		Peer-Rating Factor									
		I		II		III		IV		V	
	Step	Variable	R	Variable	R	Variable	R	Variable	R	Variable	R
16PF	1	G	.29			F	.36	O	.24	M	.38
	2	H	.37			M	.44			G	.45
	3	M	.43							I	.47
	4	F	.44								
O-A Battery	1	159a	.33	316	.25	206	.25	237	.23	117	.47
	2	246	.40	145a	.32	246	.31			167a	.57
	3					7	.35			159a	.63
	4					275	.40			25a	.65
Both	1	159a	.33			F	.36	O	.24	117	.47
	2	G	.44			M	.44	237	.33	167a	.57
	3	M	.48			275	.48			159a	.63
	4	H	.52			7	.51			M	.67

Note: -- Since these multiple correlations have not been cross-validated, their values should not be construed as applicable to new samples.

A and B combined) as multiple predictors of each peer-rating factor. The multiple correlations at each of the first four steps of these ten stepwise regression analyses are presented in Table 7. These results suggest that

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Insert Table 7 about here

(a) the O-A Battery measures were slightly superior to the 16PF scales in the prediction of peer-rating Factor V (Culture), (b) the 16PF scales were slightly superior in predicting Factor III (Dependability or Conscientiousness) and--perhaps--Factor IV (Neuroticism vs. Emotional Stability); while (c) the two sets of predictors were essentially equivalent in predicting peer-rating Factors I and II. Across all five criteria, there was no clear superiority of O-A Battery measures over 16PF scales.

Table 7

Results of the Stepwise Multiple-Regression Analyses:

16PF Scores (Forms A+B) vs. O-A Battery Factor Scores

I. Total Sample (N = 82)

	Peer-Rating Factor									
	I		II		III		IV		V	
Step	16PF	18 O-A	16PF	18 O-A	16PF	18 O-A	16PF	18 O-A	16PF	18 O-A
1	.29	.38	.17	.20	.36	.24	.24	.14	.38	.55
2	.37	.41	.25	.28	.44	.34	.34	.19	.45	.61
3	.43	.43	.33	.32	.47	.41	.36	.23	.50	.67
4	.45	.45	.37	.34	.50	.44	.38	.25	.51	.69

II. Average Cross-Validity Coefficients (N = 41 in each of two subsamples)

	Peer-Rating Factor									
	I		II		III		IV		V	
Step	16PF	18 O-A	16PF	18 O-A	16PF	18 O-A	16PF	18 O-A	16PF	18 O-A
1	.19	.37	-.07	-.09	.29	.09	.14	-.05	.28	.56
2	.22	.26	-.12	-.07	.40	.10	.12	.03	.31	.54
3	.24	.25	-.02	-.12	.34	.13	.13	.03	.36	.53
4	.17	.18	-.13	-.06	.32	.16	.05	.01	.34	.57

Discussion

While objective tests are more cumbersome and costly to administer than are questionnaires, they could well repay the increased investment in time and money if they provided substantially more valid measures of important individual differences. For example, questionnaires are often viewed as alarmingly vulnerable to individual differences in impression management (e.g., response sets, biases, or styles), while objective tests are ostensibly more immune to such potentially distorting effects. In fact, Cattell has explicitly defined objective tests as those on which ". . . the subject does not really (he may believe he does) know for certain in what way his behavior is being measured or what kinds of personality inference will be drawn from his test reactions [Cattell & Warburton, 1967, p. 16]," and he has argued that ". . . the real art of the psychologist . . . is to produce the kind of test which disguises (from the subject) what it measures! [Cattell & Warburton, 1967, p. 35]."

Unfortunately, as has been argued elsewhere (Goldberg, 1968), this definition shifts the criteria for establishing objectivity from the test materials and instructions to the introspections of each individual being tested. A test, by Cattell's definition, is objective if and only if the subject doesn't know the tester's scoring rationale; consequently, for any given test and testing session, some of the subjects may be administered an objective test while others may not. Moreover, for any one test, some scoring keys will be objective (for some subjects) and other keys will not. Of even greater significance, Cattell's definition of objectivity places the concept outside the usual domain of scientific usefulness, since most psychologists are unwilling to concede knowledge of the inner thoughts of other individuals.

However, to the extent that one can infer such subjective reactions, many of the 30 O-A Battery tests utilized in the present project would fail Cattell's definitional criterion. In fact, those tests which are the most objective by the usual standards (e.g., the maximum performance tasks) are precisely those for which the average subject should be able to intuit the "way his behavior is being measured." For example, of these 30 O-A Battery tests, about half are maximum performance tests of various abilities (e.g., Gestalt closure, logical ability, arithmetical reasoning, maze performance, clerical accuracy, clerical speed, etc.). For these tests, the measure variable and the testing task (as well as the test name) are typically much the same.

Moreover, the remaining half of the test battery includes mostly short questionnaires, which presumably reflect the same response processes endemic to self-report data more generally. Indeed, Cattell has elevated some of these putative response sets to the level of objective test scores. For example, three such biases (response extremeness, acquiescence, and response inconsistency) are scored from Test 9, a short personality questionnaire, while social desirability response set is scored from Test 24, another similar questionnaire. While one may assume that most subjects would not suspect the meaning of these particular variables, the average subject might well know the meaning of many others. For example, Test 27, called "Highbrow Tastes" to the psychologist and "Personal Tastes" to the subject, includes 20 questions, each followed by three alternatives, one of which is keyed as "highbrow" (e.g., Item 1: "When playing cards with your friends, which game would you prefer? (a) Canasta, (b) Bridge, (c) Poker"); the test score is the number of "highbrow" alternatives selected. Or, Test 38, called "Annoyability" to the psychologist and "Common Annoyances" to the subject, includes 25

"annoying happenings" (e.g., Item 1: "People who keep their radios loud"), to each of which the subject responds by checking one of three alternatives ("Very annoying," "Somewhat annoying," or "Not annoying"); the variable scored from this test is called "more susceptibility to annoyances." The reader must ask himself how much "art" was involved in producing the subterfuge behind those two objective tests.

Finally, some of the O-A Battery tests appear to be but shortened versions of rather traditional personality or attitude scales. As just one of many possible examples, Test 34, called "Authoritarianism" to the psychologist and "Good and Bad Personal Values" (sic) to the subject, includes 16 items (e.g., Item 1: "Respecting authority and being obedient to law is not as important in the modern world as in the time of our forefathers"), each administered with an "Agree - Disagree" response format; the test score is called "little authoritarian submission." While it is possible that most subjects may not know the name of the variable scored from this test, they should share this ignorance with their peers who are responding to such classic attitude scales as the California F-scale or Rokeach's Dogmatism scale--both of which ostensibly provide Q- rather than T-data.

Indeed, one can assume that far less effort was devoted to establishing the reliability of most O-A Battery test scores than is usual with modern personality scales, and consequently their potential relationships with other variables could be severely attenuated. Some evidence for this conjecture comes from two sources: (a) the extraordinarily low values of the intercorrelations among the 57 O-A Battery measures (see Table E of the Appendix), and (b) the urgent warnings by Cattell that relatively minor changes in test administration conditions tend to produce massive changes in O-A Battery test scores. For example, Cattell has pleaded

for keeping the "test administration conditions as closely similar as possible to those of the several studies that have been done [in his laboratory] since, even with the utmost care, it is easy to lose that comparability and that invariance which we seek in science."[2] This concern, which is reminiscent of similar comments made two decades ago by many exponents of the "projective hypothesis," is seldom given voice in the debate over the relative advantages of objective tests as compared to questionnaire scales.

However, any such lack of robustness in O-A Battery test scores makes factor analysis of these variables a somewhat dubious venture. Since the intercorrelational pattern among these 57 O-A Battery variables is quite similar to that produced by correlating random normal deviates, Cattell's usual criterion for estimating the quality of factor rotation (the hyperplane count, defined as the percentage of factor loadings between -.10 and +.10) can be grossly misleading. For example, when the 57 × 57 O-A Battery correlation matrix from the present study is factored, the hyperplane count tends to be quite high, no matter how many factors are rotated and no matter what sort of rotational algorithm is employed.

Nonetheless, clearly the proof of the objective test pudding lies in the validating, and here another serious problem arises. In their recent test compendium, Cattell and Warburton (1967) have described over 400 objective tests, yielding more than 2,000 test scores, some of which <u>might</u> be useful in any particular applied setting. Unfortunately, an enormous number of subjects would be needed to discover and to cross-validate any potentially important predictive measures included in this set, even if samples of subjects could be inveigled into sitting still long enough to administer but a fraction of the tests currently available. Given the findings from the present study, whose results showed no clear superiority of O-A Battery measures over 16PF

scores in predicting broad peer-rating criteria, it is not obvious that such an awesome test distillation process will be soon forthcoming.

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Footnotes

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[2]Personal communication; September 13, 1971.

Appendix

Table A

The Four Rating Scales Used to Measure Each of the Five Peer-Rating Factors:

Statements Anchoring the A and B Poles of Each Scale

Factor I - Surgency

Trait 1-1 A - Talks a lot, to everybody.

1-1 B - Says very little; gives the impression of being occupied with thoughts.

Trait 1-2 A - Comes out readily with his real feelings on various questions so that you know where you stand with him. Expresses his feelings, sad or gay, easily and constantly. Easy to understand.

1-2 B - Keeps his thoughts and feelings to himself. Often leaves you puzzled as to the motives for his actions. Inscrutable. Does not give away information for the fun of it.

Trait 1-3 A - Rushes in carefree fashion into new experiences, situations, emergencies. Ready to meet anything. Happy-go-lucky. Has a great appetite for life.

1-3 B - Avoids the strange and new. Looks at all aspects of a situation over-cautiously. Keeps clear of difficulties. Uninquiring, lacking in desire to try new things.

Trait 1-4 A - Likes to be in large groups. Seeks people out for the sake of company. Likes parties as often as possible. Not fond of being alone.

1-4 B - Does not seem to miss company of others. Goes his own way.

Factor II - Agreeableness

Trait 2-1 A - Does not mind when people use his property, time, or energy. Generous, gives people "the benefit of the doubt" when their motives are in question. Warm-hearted.

2-1 B - Gets irritable, or resentful, if property or other rights are trepassed on. Inclined to be "close" and grasping. Is generally surly, hard, and spiteful.

Trait 2-2 A - Not prone to jealousy.

2-2 B - Becomes readily jealous of people. Unreasonably hostile.

Trait 2-3 A - Gentle tempered. Blames himself (or nobody) if things go wrong.

2-3 B - Goes his own way regardless of others. Blames others, not himself, whenever there is conflict or things go wrong. Headstrong. Predatory--tends to use other people for his own ends.

Trait 2-4 A - Generally tends to say yes when invited to cooperate. Outgoing. Ready to meet people at least halfway. Finds ways of cooperating despite difficulties.

2-4 B - Inclined to raise objections to a project, cynical or realistic. "Cannot be done" attitude. Uninterested or unfavorable attitude to joining in. Inclined to be "difficult."

Factor III - Dependability

Trait 3-1 A - Tidy, over-precise, especially over details. Drives other people to be the same. Strict, fussy, pedantic. Insists on everything being orderly. (In these respects, rather "uncomfortable to live with.")

3-1 B - Rather careless of detail. Lazy. Careless over expenditures. Has no difficulty in relaxing. Enjoys ease.

Trait 3-2 A - Has a sense of responsibility to his parents, community, etc. Can be depended upon to be loyal to agreed standards.

3-2 B - Does not seem to take responsibilities seriously. Undependable. Thoughtless. Refuses to accept responsibilities of his age.

Trait 3-3 A - Careful about principles of conduct. Guided by ideals, ethics, unselfishness. Scrupulously upright where personal desires conflict with principle.

3-3 B - Inclined to somewhat shady transactions. Not too careful about right and wrong where own wishes are concerned. Not particularly just, ethical, or unselfish.

Trait 3-4 A - Sees a job through in spite of difficulties or temptations. Strong-willed. Persisting in his motives. Painstaking and thorough.

3-4 B - Gives up rather easily. Led astray from main purposes by stray impulses. Slipshod - does not finish a job thoroughly.

Factor IV - Neuroticism

Trait 4-1 A - Rarely seems to get tired or upset. Goes on with what he is doing regardless of distractions. Rarely shows any nervousness.

4-1 B - Easily gets tired and overwrought. Is frequently irritable. Jumps when spoken to. Shows occasional signs of "nervousness" (e.g., fidgeting, tremor, digestive disturbances, poor memory). Constantly complains of fatigue.

Trait 4-2 A - Calm, tough, "What's the fuss about?" attitude.

4-2 B - Worries constantly, sensitive, hurried; seems to suffer from more anxieties than other people. Slight suppressed agitation most of the time.

Trait 4-3 A - Self-possessed, hard. Does not lose composure, e.g., through emotional provocation.

4-3 B - Easily embarrassed or put off balance in conversation. Gets confused in emergency. Blushes, shows excitability, becomes incoherent. (Not general emotionality, but momentary "nervousness.")

Trait 4-4 A - Does not worry about illnesses.

4-4 B - Dwells on illness or hurts a great deal. Magnifies relatively trivial illnesses. Fusses a good deal over bodily symptoms.

Factor V - Culture

Trait 5-1 A - Artistically sensitive to surroundings. Fastidious, not too easily pleased.

5-1 B - Not showing artistic taste. Not interested in artistic subjects. Insensitive to aesthetic effects.

Trait 5-2 A - Has wide interest and knowledge, especially in intellectual matters. Enjoys analytical, penetrating discussions in small groups.

5-2 B - Rather ignorant. Unreflective. Does not read much or enjoy intellectual problems. Narrow, simple interests.

Trait 5-3 A - Polite and charming in social situations. Deals with people gracefully and skillfully. Refined with speech, manner, etc. Familiar with good etiquette.

5-3 B - Clumsy in social situations. Crude in speech, manner, etc.

Trait 5-4 A - Inclined to be governed by a vivid imagination. Thinks of unusual angles and aspects of a question. Sensitive to a multitude of emotional and other possibilities not realized by the average person. Intuitive, more interested in mental than material and practical aspects of a situation.

5-4 B - Solves questions in a logical, matter-of-fact fashion which often ignores fine points or unusual possibilities. Heavily and "blindly" logical, refusing to see intangibles. More interested in material than mental aspects of a situation.

Table B

The 57 Variables Scored from the O-A Battery

Variable's Master Index Number	Test Number	Test Name	Variable's Description
6a	T49	Letter Placement: Ideomotor Speed	faster speed
7	T2	Gestalt Closure	faster speed of closure
9	T50	Ideomotor Tempo	faster tempo
25a	T15	Memory for Emotional Words	better recall of emotional relative to nonemotional words
30	T13	Criticalness of Self and Other Persons	more criticism of self relative to criticism of others
31	T10	Opinion Inventory Y	more fluctuation of attitudes
34	T10	Opinion Inventory Y	more willingness to change attitude after receiving additional information (more immaturity of opinion)
35	T10	Opinion Inventory Y	more suggestibility to authority
36	T11	Logical Assumptions	higher logical ability
38a	T9	Opinion Inventory X	higher ratio of consonant to dissonant recall
53	T13	Criticalness of Self and Other Persons	more criticism of self relative to appreciation of self
67a	T9	Opinion Inventory X	greater extremity of viewpoint
87	T6	Reading Tempo and Memory for Interesting Material	better recall of emotionally interesting relative to dry material
97	T76	Time Interval Estimates for Idle vs. Working Periods	greater length of passing time estimates
L00	T16	Pessimism About Events	more pessimism over doing good
L01a	T17	Aspiration Level in Coding	less excess of aspiration over performance
L02	T18	Aphorism Acceptance	greater tendency to consider remarks "obvious"
L08	T22	Skills: Experience and Confidence	more confident assumption of skill in untried performance
L09	T23	Pleasant vs. Unpleasant and Past vs. Future Associations	more pleasant relative to unpleasant associations
L10	T23	Pleasant vs. Unpleasant and Past vs. Future Associations	more future relative to past associations

Variable's Master Index Number	Test Number	Test Name	Variable's Description
112	T24	Unusual Events: Consequences	more favorable relative to unfavorable self-reference
117	T27	Highbrow Tastes	more highbrow tastes
123	T76	Time Interval Estimates for Idle vs. Working Periods	longer time estimated for working relative to idle periods
133	T8	Criticalness of Evaluation	more criticalness
145a	T17	Aspiration Level in Coding	higher responsiveness of aspiration level to performance
146a	T2	Gestalt Closure	greater accuracy
147a	T22	Skills: Experience and Confidence	more confidence relative to opportunity
150	T18	Aphorism Acceptance	more acceptance of obvious aphorisms
151	T32	Decision Making: According to Principles vs. Particulars	faster speed on particulars relative to principles
152	T9	Opinion Inventory X	greater tendency to agree
159a	T19	Time Estimates for Everyday Tasks	greater variability of other-referent time estimates
167a	T9	Opinion Inventory X	better immediate memory
191	T19	Time Estimates for Everyday Tasks	more considered possible for others in given time
192	T19	Time Estimates for Everyday Tasks	more considered possible for self in given time
193	T10	Opinion Inventory Y	more shifting of attitudes toward those of successful people
194	T10	Opinion Inventory Y	more shifting of attitudes away from those of neurotics
199	T35	Numerical Ability	higher score
203	T35	Numerical Ability	more confidence
206	T37	Gottschaldt: Perceptual Analysis	greater accuracy
211a	T38	Annoyability	more susceptibility to annoyances
219	T41	Honesty in Admitting Frailties	more frailties admitted
237	T42	Mazes (Pencil)	faster speed on difficult relative to easy mazes
246	T34	Authoritarianism: Personal Values	little submission
271	T43	Fluency: Verbal: Personal: Dreams	higher total verbal fluency
273	T43	Fluency: Verbal: Personal: Dreams	more fluency on self relative to fluency in other tests
275	T30	Arithmetical Reasoning	higher total correct

iable's aster ndex umber	Test Number	Test Name	Variable's Description
?78	T6	Reading Tempo and Memory for Interesting Material	faster tempo
280	T76	Time Interval Estimates for Idle vs. Working Periods	lower accuracy
283	T43	Fluency: Verbal: Personal: Dreams	more fluency on dreams relative to fluency in other tests
288	T8	Criticalness of Evaluation	faster speed of judgment
307	T44	Letter and Number Comparison	faster speed (letters)
308	T44	Letter and Number Comparison	faster speed (numbers)
309	T45	Line Length Judgment	faster speed
314	T44	Letter and Number Comparison	greater number of difficult relative to easy comparisons attempted (numbers)
316	T13	Criticalness of Self and Other Persons	more fluency concerning own relative to other people's personal characteristics
327c	T9	Opinion Inventory X	greater inconsistency of attitudes
330	T47	Ethical Preferences in Stories	higher score

Intercorrelations among the Scales within 16PF Forms A and B

(N = 82)

	A	B	C	E	F	G	H	I	L	M	N	O	Q1	Q2	Q3	Q4
A		-.08	-.19	.01	-.00	-.15	.20	.15	.14	-.07	-.11	.02	.10	-.41**	-.08	.00
B	.11		.07	.10	-.01	.03	-.11	-.13	-.11	-.12	.16	-.03	-.03	-.03	-.07	.02
C	.09	.06		-.02	.05	.19	.17	-.25*	-.34**	-.22*	.25*	-.35**	.02	.02	.41**	-.58**
E	.00	.13	.09		.26*	-.25*	.41**	.31**	-.12	.24*	.06	-.08	.18	.08	-.09	.02
F	.20	.28**	.24*	.42**		-.09	.34**	.22*	-.06	-.10	.01	-.01	-.00	-.27*	.03	-.17
G	-.02	-.32**	-.26*	-.14	-.25*		.00	-.19	.04	-.22*	.09	-.05	-.34**	-.16	.28**	-.06
H	.28**	.11	.47**	.44**	.39**	-.13		.05*	-.25	-.11	-.02	-.27*	.19	-.39**	.24*	-.29**
I	.03	.04	-.10	.01	.09	-.37**	-.01		-.11	.32**	-.10	.20	.00	.13	-.12	.10
L	-.12	-.18	-.47**	.01	.02	.38**	-.37**	-.07		.25*	.12	.37**	-.10	.07	-.18	.49**
M	-.18	.27*	-.16	.26*	.21	-.18	-.12	.15	.13		.02	.35**	.22*	.35**	-.08	.41**
N	.09	.31**	.26*	.15	.22*	-.13	.39**	-.11	-.22*	-.11		-.21	.08	-.09	.06	-.03
O	.04	.01	-.52**	-.25*	-.21	.10	-.57**	.17	.31**	.23*	-.28**		-.14	.08	-.32**	.54**
Q1	-.06	.13	.09	.00	.01	-.02	-.06	-.09	-.04	.29**	.13	.14		.20	-.06	-.04
Q2	-.10	.13	-.17	-.11	-.13	.04	-.29**	-.16	-.08	.12	.07	.25*	.21		-.25*	.23*
Q3	-.04	-.12	.25*	-.00	-.15	.21	.12	-.11	-.16	-.34**	.17	-.26*	-.09	-.08		-.38**
Q4	.08	-.01	-.44**	.00	.03	.12	-.31**	.09	.41**	.27*	-.33**	.51**	.03	.03	-.48**	

Note: -- Intercorrelations based upon Form A are presented above the main diagonal, while those based upon Form B are presented below the diagonal.

*p < .05 **p < .01

Correlations between 16PF Forms A and B

(N = 82)

Form B	Form A: A	B	C	E	F	G	H	I	L	M	N	O	Q1	Q2	Q3	Q4
A	.50**	.00	-.04	.02	.22*	.02	.24*	.22*	.05	.01	-.03	.07	-.15	-.35**	.10	.05
B	.04	.37**	-.18	-.04	.10	-.13	.09	.06	.02	.06	-.04	-.07	.19	-.01	-.03	-.02
C	-.03	.09	.37**	.06	.29**	-.02	.35**	-.04	-.36**	-.19	.08	-.35**	.04	-.10	.32**	-.52**
E	-.07	.09	.12	.40**	.31**	-.15	.24*	.15	-.07	.07	.10	-.02	.17	.10	-.21	-.07
F	.16	.14	.03	.50**	.54**	-.27*	.40**	.32**	-.00	.13	.03	.01	.16	-.04	-.04	-.05
G	-.19	-.17	.05	-.18	-.14	.37**	-.08	-.29**	.18	-.13	.09	-.04	-.36**	-.03	.12	.11
H	.09	-.05	.24*	.38**	.42**	-.11	.71**	-.02	-.27*	-.11	.09	-.33**	.20	-.26*	.21	-.35**
I	.07	.01	-.12	.19	.15	-.12	-.09	.30**	.04	.24	.02	.06	.06	.04	-.07	.13
L	.05	-.10	-.34**	-.03	-.11	.04	-.19	-.03	.53**	.13	.01	.40**	-.20	.09	-.46**	.45**
M	-.25*	.07	-.28*	.18	.11	-.21	-.07	.41**	.20	.23*	-.18	.18	.10	.37**	-.35**	.14
N	.24*	.27*	.10	.26*	.05	-.04	.44**	-.19	-.24*	-.18	-.09	-.34**	.35**	-.18	.12	-.30**
O	.00	.09	-.48**	-.21	-.24*	-.01	-.55**	.14	.32**	.18	-.06	.32**	-.32**	.15	-.37**	.58**
Q1	-.07	.03	-.02	-.12	-.05	-.04	-.16	-.01	-.03	-.04	-.16	-.06	.14	.22*	-.17	-.02
Q2	-.11	.25*	-.05	-.03	-.30**	-.13	-.34**	-.06	.00	-.06	.15	-.02	.14	.29**	.00	.20
Q3	-.00	-.27*	.34**	-.15	-.07	.16	.19	-.18	-.31**	-.13	.18	-.50**	-.02	-.04	.36**	-.42**
Q4	-.09	.03	-.43**	.02	.01	-.04	-.25*	.17	.37**	.22*	-.17	.40**	-.30**	.02	-.30**	.57**

*p < .05

**p < .01

Table E

Intercorrelations among the 57 O-A Battery Variables

6a	7	9	25a	30	31	34	35	36	38a	53	67a	87	97	100	101a	102	108	109	110	112	117	123	133	145a	146a	147a	150	151
	.08	.21	.03	-.18	-.08	-.09	.00	.15	.13	-.12	.10	-.11	.17	.01	(.36)	.22	-.11	(-.33)	.02	(-.38)	-.06	.04	.00	-.05	-.02	-.08	.10	-.20
		.18	-.01	-.18	-.03	.18	.17	.03	.17	.02	.12	-.10	.11	.08	.12	.10	-.06	-.04	.20	-.07	.11	-.02	.03	-.08	(.55)	-.03	-.14	.15
			.06	-.13	-.05	-.02	.05	-.14	.18	-.15	.13	-.04	.28	.19	.05	-.14	-.09	-.16	.07	.09	.09	.07	.15	-.09	.11	.00	.03	.23
				.11	.08	.00	.19	.15	-.03	.10	-.11	-.13	.04	.23	.05	.07	.25	-.19	.27	-.10	.14	.01	-.14	.21	.10	.17	-.08	-.09
					.11	-.08	-.08	.06	.07	(.37)	-.19	.08	-.25	-.12	-.17	-.11	.15	.08	-.17	.10	.02	-.09	.19	.18	-.25	.13	.17	-.17
						-.10	-.01	.05	-.06	.12	-.02	.14	-.01	-.04	-.13	-.08	-.09	.02	.04	-.07	-.08	.13	-.15	.08	.12	-.07	.07	.00
							.17	-.07	.17	.04	.10	.02	-.26	.25	-.10	.13	.22	.11	-.05	(.31)	.06	-.21	.01	-.13	.08	.21	-.14	.15
								.14	.14	-.10	-.19	.05	-.04	.01	.04	.10	.03	.17	.03	-.05	.19	-.12	.00	.10	.19	.06	.05	-.01
									-.17	-.08	-.05	.03	.05	.11	-.11	.19	.00	-.06	.02	-.11	.08	-.04	.08	.01	.02	-.02	.03	-.23
										-.04	.14	-.03	-.07	.16	.18	.09	-.02	.15	-.16	-.09	.02	-.02	-.08	-.13	.07	.07	.11	-.06
											-.03	-.06	-.17	-.19	-.18	-.06	.16	.01	-.12	.26	.00	-.13	.23	-.03	-.06	.07	-.09	.01
												-.02	.14	.20	.02	-.02	-.08	.03	.11	-.01	-.11	.22	.10	.05	.03	-.02	.16	.05
													-.08	-.21	-.10	-.21	.01	.01	-.13	.23	-.25	.02	-.19	.00	-.12	.11	.02	-.01
														.13	.16	.02	-.22	-.04	.08	-.11	.04	(.55)	-.05	-.12	.01	-.24	-.10	.15
															.02	.01	-.03	-.04	.17	.03	.10	.02	-.10	-.05	.21	-.07	.02	.32
																.08	-.05	(-.34)	-.03	-.20	-.12	.21	.07	-.15	.04	-.04	.00	.02
																	.05	.01	.02	-.07	.29	.05	-.10	-.07	.04	.13	-.02	-.12
																		.15	.21	.26	.09	-.08	-.11	.09	.00	(.77)	.08	.03
																			-.01	.11	.16	.00	-.13	.03	-.05	.19	-.01	.11
																				-.15	.06	-.16	-.08	.13	.18	.13	.15	.03
																					.27	.04	.08	-.06	-.07	.24	-.18	.13
																						-.05	-.14	.06	-.03	.10	-.09	.01
																							-.03	-.19	-.05	-.15	-.14	-.05
																								-.10	-.01	-.17	.11	.09
																									-.05	.00	.10	-.11
																										-.04	.07	.12
																											.05	-.04
																												-.16

152	159a	167a	191	192	193	194	199	203	206	211a	219	237	246	271	273	275	278	280	283	288	307	308	309	314	316	327c	330
.01	.13	.31	.05	-.21	-.04	-.02	.51	.11	.23	.23	.09	-.15	-.06	.33	-.09	.35	.23	.16	-.08	.34	.58	.50	.51	.35	-.18	-.06	.27
.10	-.10	.32	.05	.06	.04	.09	-.05	.21	.25	.03	-.02	.20	-.09	.10	-.07	-.08	.19	-.24	-.01	.04	.11	-.06	-.10	.18	-.05	.05	.11
.05	-.06	.19	.09	-.18	.04	.11	.02	.07	-.04	.05	.17	.11	-.06	-.05	.16	.06	.46	-.10	.07	.11	.13	.11	.06	.26	-.12	-.10	.01
.02	.03	.14	.01	-.15	-.07	-.02	-.11	-.11	.04	-.08	-.05	-.07	-.22	-.05	.03	-.05	-.01	-.07	.07	.20	-.22	-.23	-.10	.12	.11	.12	-.02
.00	.01	-.26	-.15	.02	.14	.01	-.05	.01	-.03	-.06	-.33	-.01	.09	-.22	-.01	.13	-.11	-.09	-.10	-.02	-.08	-.15	-.11	-.05	.59	.10	-.16
.05	-.04	-.10	-.14	-.27	-.21	-.12	-.18	-.01	-.09	-.00	-.13	-.05	-.13	-.14	-.04	-.19	-.18	.03	-.06	-.10	-.07	-.17	-.01	.03	.03	.04	-.00
.20	-.06	.11	-.10	.09	-.17	-.08	-.05	-.07	.18	-.02	.11	.09	-.09	-.05	.11	.00	.10	-.00	-.07	.08	-.04	-.09	-.11	.08	-.03	.10	-.14
.35	.23	-.00	.05	.02	.15	.03	.01	-.18	.21	-.02	-.05	-.09	-.12	-.15	.11	-.15	.01	-.03	-.04	-.01	.01	-.11	.07	.07	-.25	-.08	.01
.03	-.03	.26	-.06	.02	-.15	-.14	.06	.03	.07	.01	.05	-.15	-.01	.03	-.07	.14	-.18	.16	-.06	-.11	.06	-.03	.04	.13	.08	.21	.03
.07	.15	.02	.08	-.06	.01	-.04	.12	.05	.15	-.05	-.25	-.11	-.02	.22	-.02	.25	.03	-.04	.05	.19	.11	.08	.14	.10	.05	.15	.13
.06	-.07	.01	.01	.11	-.07	-.02	-.10	.01	.04	-.08	-.15	.21	.05	-.15	-.06	.02	-.15	-.26	.07	.02	-.08	-.20	-.13	-.08	-.11	.07	-.18
.09	.04	.15	.11	.03	-.11	.05	.03	.14	-.12	.18	.10	.05	.22	.13	.08	.04	.12	-.09	.12	.22	.12	.05	.02	.12	-.07	.03	.13
.10	.18	-.05	-.10	.15	.08	-.27	-.13	-.14	-.04	.17	.08	-.07	.12	-.16	.21	-.07	-.13	.02	-.12	-.19	-.13	-.05	-.06	.13	.11	-.04	-.07
.15	-.04	.17	.12	-.15	.05	.12	-.16	.23	-.12	.06	.25	-.03	-.12	.04	-.04	-.08	.17	-.12	-.05	.09	-.00	.01	-.12	-.06	-.09	.01	.03
.10	.02	-.07	.28	-.27	.03	.08	-.25	.09	.13	.30	.29	.02	-.12	.16	-.06	.18	.17	-.15	.18	.17	.08	-.05	-.02	.11	-.02	.30	-.18
.05	-.04	-.00	.15	.03	-.03	-.02	.23	.23	.13	-.06	.07	-.05	-.03	.37	-.28	.03	.13	-.06	-.08	.22	.24	.20	.26	.02	-.20	-.03	.31
.04	-.13	.23	.12	-.01	-.05	-.12	.08	-.10	.17	.07	.14	.02	-.06	.19	-.15	.19	-.05	.14	-.01	.09	.05	.12	-.05	-.10	-.14	.18	.07
.15	.24	.02	.01	-.09	-.08	.19	-.05	-.10	.11	-.15	-.16	-.12	-.03	-.08	-.05	-.08	-.02	-.18	-.19	.08	-.22	-.25	-.12	-.04	.30	.06	-.05
.20	.14	-.17	-.11	.05	.12	.03	-.22	-.10	-.10	-.03	-.18	-.03	-.15	-.11	.11	-.08	-.03	-.11	.00	-.20	-.21	-.30	-.12	-.24	.10	.03	-.08
.03	-.03	.11	.18	-.01	-.02	.20	.04	-.01	.02	-.03	.13	-.07	-.02	.12	-.01	-.10	.18	-.04	-.02	.27	.11	-.10	.19	-.09	.02	.03	.08
.16	.00	.05	.09	.23	.03	.03	-.20	-.20	.02	-.09	.10	.13	-.07	-.11	.11	.08	-.05	-.16	-.01	-.19	-.12	-.16	-.26	.02	.02	-.02	-.20
.23	.01	.15	.08	.05	.17	-.01	-.19	-.11	.20	-.14	.15	-.01	-.34	.04	-.00	.16	.12	-.08	.06	.04	-.06	.01	-.12	.05	.07	.08	.03
.00	.08	-.03	.01	-.15	-.05	.06	-.22	.16	-.10	-.06	.08	-.01	-.07	-.14	-.07	.03	-.17	.03	-.03	-.06	-.05	-.00	-.13	-.10	.03	.14	-.15
.06	-.17	.04	-.00	.04	-.13	.15	.07	.24	.08	-.11	-.02	.20	.15	-.10	.08	.08	.18	-.25	.13	.08	.14	.08	.07	.08	-.12	-.03	.10
.00	.09	-.03	-.13	.07	.17	-.10	-.02	-.12	-.01	-.01	-.05	-.13	-.13	.06	-.01	-.22	.17	-.03	-.04	.20	.05	-.05	.16	.13	.12	-.23	.05
.04	.02	-.03	.14	-.09	-.06	.18	-.07	-.06	.28	.07	-.01	.06	-.12	.04	-.07	.04	-.02	-.15	-.02	-.10	.09	-.09	.01	.15	-.13	.13	.13
.11	.20	.13	-.07	.02	-.11	.16	.01	-.23	.01	-.05	-.24	-.01	-.10	.02	-.05	-.09	.03	-.05	-.18	-.02	-.19	-.21	-.10	.07	.24	.09	-.10
.16	.07	-.08	-.13	-.09	.01	.11	.14	.00	-.10	.16	-.12	-.17	.13	-.04	.14	.13	.06	.07	.12	.09	.12	.12	.10	.10	.04	-.05	.07
.13	-.23	-.18	.19	-.26	.11	.19	-.30	.23	.03	.19	.15	.32	-.09	-.09	.05	-.20	.23	-.21	.13	.04	-.15	-.15	-.14	.04	-.13	.07	.05
	-.05	.09	-.18	-.09	.03	.17	.06	.18	.02	.22	-.04	-.06	.27	-.16	.04	.02	-.08	-.11	.00	.09	-.12	-.07	-.02	.03	.25	.06	-.06
		-.10	.24	.00	.12	-.13	-.02	-.20	.18	.17	-.07	-.25	.07	.08	-.09	.07	.10	.03	-.17	.08	.08	-.05	.08	.07	.09	-.03	-.03
			-.02	.11	-.11	.02	.27	.08	.12	.00	.16	-.01	-.12	.21	.14	.06	.17	.11	.07	.30	.23	.18	.06	.21	-.12	-.05	.13
				-.07	.07	-.05	-.04	.08	.06	.09	.15	.13	.08	.31	-.03	.04	.14	-.15	.07	.18	.08	-.04	-.00	.01	-.12	.13	.20
					.09	-.12	.12	-.18	-.07	-.20	-.06	-.20	.14	.10	.02	-.08	-.06	.01	.05	-.10	.01	.01	.02	-.17	-.08	-.10	-.03
						.17	-.04	.07	.11	.19	.13	-.04	-.15	.11	-.07	.02	.08	-.06	.07	.03	-.02	.05	-.01	-.10	.07	-.33	-.01
							-.07	.11	.07	-.08	-.02	.13	.02	-.04	-.04	-.07	-.03	-.04	.01	.05	-.07	-.11	.06	-.08	.04	.01	.01
								-.06	.18	.00	-.21	-.21	.22	.33	-.09	.30	.13	.23	-.16	.27	.54	.56	.52	.17	-.14	-.21	.38
									.09	-.03	.10	.12	.06	.07	-.05	.07	.26	-.27	.05	.11	-.02	.04	.01	-.01	.06	.12	.21
										.01	.12	-.02	-.21	.22	-.17	.36	.06	-.12	-.05	.23	.22	.22	.29	.13	-.15	.03	.09
											.27	.05	.04	.11	-.00	.01	.11	.03	.10	.03	.16	.15	-.00	.18	-.17	.02	-.01
												.01	-.13	.07	-.00	.00	.15	-.00	.17	.14	.02	.03	-.01	.10	-.36	.10	-.07
													-.11	-.03	.13	-.02	.02	-.15	.13	-.16	.03	-.04	-.21	-.07	-.10	-.10	-.10
														-.10	-.02	-.01	-.15	-.01	-.03	-.02	-.04	-.02	.06	-.13	.07	.05	.03
															-.46	.23	.26	-.02	-.19	.36	.25	.34	.27	.27	-.11	-.03	.27
																.01	-.03	-.02	.55	-.13	.06	-.11	-.06	-.06	.02	-.08	-.06
																	.07	.00	-.02	.11	.36	.36	.23	.16	.11	.14	.07
																		-.09	-.04	.38	.15	.16	.09	.35	-.01	-.15	.30
																			-.08	-.11	.12	.19	.12	-.05	.01	-.15	.03
																				.04	.08	-.06	.02	-.15	-.26	.13	-.09
																					.28	.30	.39	.19	-.10	-.07	.33
																						.68	.65	.09	-.15	-.12	.26
																							.53	.12	-.19	-.19	.27
																								.17	-.26	-.06	.33
																									-.05	.12	.14
																										.11	-.09
																											-.14

Table F

Rotated Factor Matrix: 18 O-A Battery Oblique Factors (N = 82)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	h^2
6a	(.54)	-.14	.05	-.07	.16	-.11	-.07	.07	.05	.07	.21	-.20	-.06	-.02	-.04	-.21	-.01	.27	.74
7	-.12	-.28	-.09	-.05	.01	-.01	-.07	-.04	(-.81)	.03	.13	.02	.06	-.07	-.13	.05	.09	.03	.78
9	.10	.09	.06	-.05	.24	-.03	.24	.02	-.08	.02	(.56)	.04	.07	-.10	-.04	-.05	-.04	-.08	.53
5a	-.21	-.02	.21	.08	.04	.27	.13	.15	.01	.24	.00	.04	-.23	.02	.02	(-.50)	-.04	.12	.63
0	-.03	.06	.03	(.75)	-.12	.11	.01	.03	.19	.09	-.04	.03	.06	-.07	-.05	-.03	.27	.02	.77
1	-.04	.12	-.10	.03	.14	.30	-.07	.04	-.10	.05	-.07	-.12	(-.47)	-.17	.00	.08	.15	.10	.46
4	-.08	.06	.14	-.18	(-.41)	-.20	.06	-.07	-.11	.14	.18	.07	-.19	-.06	-.24	-.01	-.09	-.37	.61
5	-.07	-.02	.03	-.16	-.09	-.01	.16	(.76)	-.19	.16	.07	.07	.06	.08	-.05	.02	-.09	.10	.70
6	.00	-.29	-.11	.27	-.05	-.21	-.04	.18	-.09	.15	.01	-.05	-.26	.11	(.41)	-.06	-.16	.11	.58
8a	.07	-.01	.00	.13	-.02	-.12	.11	.05	-.12	.09	.02	.02	-.03	.04	(-.76)	.02	-.10	.09	.68
3	.01	-.11	.09	.10	-.08	.12	.03	-.01	.03	.01	-.20	.00	-.15	.14	.00	-.09	(.77)	-.13	.72
7a	.08	-.16	.02	-.06	.17	.08	.17	-.36	-.11	-.11	.12	-.10	-.15	.30	-.14	.17	-.02	-.04	.48
7	-.14	-.16	-.03	.02	.02	.06	-.02	.21	.07	-.36	.14	-.35	.01	-.14	-.04	.04	-.06	-.34	.57
7	-.08	-.07	-.11	-.09	(.71)	-.02	-.01	-.03	-.03	.18	.16	.05	.05	.14	.11	.00	-.09	.07	.69
0	.02	(.47)	-.07	.09	-.05	-.05	.12	-.18	-.16	.28	.07	-.18	-.12	.33	-.04	-.16	-.30	-.16	.75
1a	.08	.03	-.03	-.25	.17	-.12	-.25	.07	.03	-.19	.04	.19	.10	.07	-.28	(-.40)	-.04	.16	.59
2	-.02	-.28	.11	-.12	-.08	.33	-.06	-.05	.01	.44	-.21	-.17	-.01	.12	-.02	-.02	.00	.25	.56
8	-.10	.02	(.87)	.07	-.06	-.01	-.09	.05	.05	-.06	-.01	.05	.00	.08	.03	-.08	.05	-.08	.84
9	-.15	.05	.09	.07	-.01	.04	.09	.09	-.02	.23	-.11	.04	.05	.13	-.18	(.59)	-.03	.01	.54
0	.09	.04	.27	-.10	-.03	.35	.06	-.19	-.29	.07	-.06	.14	-.04	.23	.30	-.02	-.25	.09	.62
2	.00	-.04	.20	.02	.00	-.08	.01	-.03	.07	.09	.09	.05	.05	.08	.08	.14	.21	(-.69)	.66
7	-.03	-.12	.03	.15	.01	-.02	.05	.08	-.02	(.62)	.06	.08	.16	.11	.04	.08	-.03	-.11	.55
3	.02	-.03	-.02	.01	(.84)	-.12	-.03	-.04	.04	.01	-.14	.03	-.10	-.01	-.10	-.03	-.02	-.12	.76
3	.14	.00	-.10	.15	-.07	-.20	.17	.06	-.02	-.21	.24	.31	.03	.14	.20	-.08	.37	.02	.56
5a	-.02	-.07	-.04	.13	-.16	(.66)	-.01	.01	.04	.15	.07	-.05	.05	.00	.08	-.04	-.04	.04	.53
3a	.07	.12	-.02	-.08	-.03	.01	-.07	.16	(-.78)	-.02	-.07	-.05	-.12	-.01	.02	.06	-.04	.01	.66
7a	-.11	-.09	(.84)	-.02	-.10	-.07	-.10	.01	.06	.01	.07	-.06	-.05	-.04	-.08	.07	.04	-.06	.79
0	.20	.06	.11	.20	-.09	.06	.27	.04	.02	-.12	.04	-.12	-.01	.04	.01	.13	-.12	.29	.37
L	-.24	(.51)	.00	-.23	-.07	-.09	.02	-.09	-.09	.06	.30	-.05	.11	.10	.02	.06	.16	.01	.63
2	-.11	-.15	.19	.30	-.01	-.04	.12	-.31	-.20	-.38	-.08	-.28	.25	-.26	-.04	-.26	-.03	.16	.76
9a	.11	-.04	.25	.10	.18	.13	-.11	(.42)	.06	-.13	-.02	-.26	.05	.35	-.15	.13	-.12	-.12	.64
7a	.11	(-.65)	.15	-.14	.08	-.05	.15	-.17	-.15	.27	.24	-.04	-.04	-.07	.09	-.12	.03	.00	.71
L	-.03	.08	.01	-.12	.06	-.06	-.07	.06	.01	.08	.03	-.06	.04	(.66)	.01	.02	.08	.03	.48
2	-.04	(-.46)	-.15	-.08	-.19	.11	.00	-.02	-.02	-.16	-.18	.27	.20	.09	-.02	.06	-.10	-.35	.60
3	-.03	.06	-.11	.13	.02	.19	-.02	.12	-.02	.12	-.05	-.21	(.72)	.00	-.03	.05	-.03	.00	.64
4	.10	.25	.34	.01	.14	-.08	.08	-.09	-.26	-.03	-.08	.18	.28	-.08	.17	.02	.00	.10	.48
9	(.57)	-.25	.08	-.07	-.20	-.08	-.12	.01	.09	-.14	.08	.11	.03	-.07	-.04	-.02	-.05	.21	.72
3	-.14	.05	-.20	.18	.15	-.16	-.04	-.20	-.11	-.09	.22	.13	.14	.11	-.05	-.15	.12	.24	.47
6	.33	.04	.05	.08	-.12	-.10	-.14	.23	-.34	.17	-.07	-.08	.19	.02	-.08	-.27	.09	-.15	.56
1a	.04	.09	-.03	-.08	-.07	-.03	.05	-.06	-.03	-.01	.08	(-.76)	.12	.13	.07	.06	.04	.12	.66
9	-.05	.04	-.15	-.26	.07	-.08	.09	-.11	.04	.13	.10	-.27	.18	.19	.29	-.30	-.16	-.26	.62
7	-.03	.16	-.02	-.15	-.03	-.15	.05	-.18	-.11	.13	.08	-.07	.02	-.08	.07	.16	(.49)	.01	.47
6	-.04	-.11	.00	.07	-.11	-.18	.04	-.09	.08	(-.62)	-.11	.04	.00	.24	.06	.03	-.05	.07	.55
1	.21	-.11	-.06	-.10	-.12	.09	(-.50)	-.25	-.04	.11	.06	-.08	.08	.32	-.16	-.03	-.07	.06	.69
3	.00	-.10	-.02	-.03	-.01	-.01	(.78)	.11	.08	-.04	.14	.01	-.03	-.13	-.03	.13	-.01	-.06	.68
5	(.53)	.01	-.06	(.41)	.00	-.32	.00	-.05	.02	.17	.01	-.05	.01	.09	-.10	-.01	-.02	-.14	.61
8	.00	.04	.02	.00	-.08	.15	-.05	-.09	.05	.15	(.73)	.08	.15	.18	-.03	.03	-.07	.08	.70
0	.18	-.06	-.02	-.16	-.06	-.11	-.05	-.02	.26	.01	-.08	-.09	-.11	-.31	.12	.14	-.34	.13	.50
3	.00	.01	-.19	-.13	-.06	.02	(.75)	-.07	.04	.13	-.18	-.06	.07	.12	-.10	-.14	.08	.05	.68
8	.25	-.06	.14	-.04	-.03	.32	.04	-.20	.09	.00	.18	.03	.05	.27	-.20	-.36	.01	.13	.65
7	(.87)	-.04	-.11	-.03	.03	.06	.07	-.04	-.10	.01	.02	-.01	-.05	.03	.01	.09	.05	-.03	.79
8	(.72)	-.04	-.14	-.08	.00	-.07	-.10	-.12	.13	.09	.08	-.06	.11	-.12	-.03	-.01	-.01	.01	.72
9	(.72)	.09	-.03	-.09	-.09	.19	.01	.08	-.02	-.11	-.05	.11	-.03	.03	-.04	-.15	-.10	.06	.70
4	.08	-.06	-.02	.11	-.12	.05	-.14	.10	-.12	-.03	(.58)	-.23	-.23	-.03	-.01	-.16	-.01	-.07	.59
6	-.18	.01	.16	(.72)	.04	.05	-.16	-.20	.05	.08	.10	.10	.02	-.15	-.05	.16	-.21	.00	.76
7c	-.15	.10	.00	.23	.00	-.32	.05	-.08	-.12	.07	-.15	-.03	-.36	.26	-.06	-.18	-.11	-.05	.53
0	.13	-.13	-.06	-.11	-.09	.05	-.15	.05	-.04	-.03	.27	.16	.03	.18	-.07	.07	.00	(.40)	.47

Intercorrelations among the 18 O-A Battery Oblique Factors

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	-.13	-.06	-.06	-.08	-.04	-.07	.00	.00	-.02	.14	-.04	.06	.08	-.09	-.13	-.10	.19
		.00	.00	.10	.01	.08	-.03	-.10	.01	.01	-.02	.03	.01	.01	.03	.09	-.01
			.12	-.09	.08	.02	.02	-.07	.04	-.02	.03	-.02	.00	-.04	.02	-.06	-.02
				-.04	.02	.02	.04	.05	-.07	-.10	-.03	-.05	-.05	-.02	-.01	.03	.01
					-.02	.01	-.08	-.03	-.02	.05	-.03	.01	.00	.02	-.03	-.02	.06
						.00	.10	.06	-.05	.01	.00	.02	-.03	.02	.05	-.05	.05
							-.08	-.06	-.02	.03	-.01	-.01	.01	.09	.06	.04	-.04
								.05	.05	-.09	-.03	-.05	-.08	-.03	.06	-.04	-.08
									-.09	-.13	-.01	.00	-.13	.02	.11	-.03	-.05
										.02	-.01	-.02	.08	.02	-.07	-.04	-.06
											-.04	.06	.08	-.05	-.09	.02	.03
												.08	.00	.01	.02	.13	.06
													.05	-.01	.03	.05	.00
														-.08	-.11	-.05	.02
															-.02	.00	.02
																.00	-.09
																	-.07

Table H

Correlations between the 16PF Scales (Combined Forms A+B) and the 57 O-A Battery Variables (N = 82)

O-A Meas.	16PF Scales A	B	C	E	F	G	H	I	L	M	N	O	O1	O2	O3	O4
6a	.24*	.01	-.26*	.06	.16	-.20	-.03	.02	.17	.06	-.19	.33**	-.06	-.08	-.34**	.34**
7	-.15	-.06	-.14	-.06	.00	-.06	-.13	.10	.12	.33**	-.28**	.20	-.04	.03	.00	.11
9	.02	-.08	-.23*	.05	-.04	-.10	-.06	.07	.25*	.18	-.03	.19	.12	.05	-.13	.10
25a	-.13	.13	-.12	.08	.09	-.30**	-.10	.17	.06	.22*	.16	-.01	.10	.02	.00	-.05
30	.12	.05	.09	.02	.06	.09	.11	-.09	-.06	-.04	.26*	.00	.04	.05	.02	-.05
31	-.08	-.08	-.02	-.12	.00	.06	.00	-.09	.09	.05	.05	-.03	.17	-.03	.02	-.04
34	-.09	.04	.16	.25*	.21	-.09	.06	.16	.00	.38**	-.13	.00	.02	.08	-.03	.03
35	-.34**	-.15	-.02	.16	.03	.08	.04	-.04	.05	.21	.06	-.10	.08	.04	.04	-.09
36	-.06	.06	-.02	.08	.00	-.03	.04	.06	.04	.14	.10	.01	.05	.07	-.03	.08
38a	.00	-.09	.11	-.07	.06	.10	.12	-.21	.17	-.06	-.02	.00	.02	-.05	.08	.04
53	.01	.00	-.02	.00	.08	-.10	-.09	.20	.01	.20	-.13	.06	.05	.09	-.09	.10
67a	-.04	.03	-.11	.06	-.06	.17	.04	-.14	.21	-.03	-.02	.11	-.01	-.06	-.17	.33*
87	.06	.07	.19	.07	.14	.17	.18	-.18	-.14	-.16	.35**	-.19	-.09	-.19	.24*	-.20
97	.03	-.23*	-.04	.04	.19	-.24*	.03	.03	.12	-.04	-.08	.06	.10	-.11	-.04	.08
100	-.24*	-.12	-.14	.15	.08	-.14	-.10	.17	.35**	.33**	-.19	.11	-.04	.16	-.13	.14
101a	.11	-.08	-.06	-.08	.07	-.03	.09	-.06	.03	-.18	-.06	.12	-.17	-.14	-.19	.04
102	-.02	.12	.00	.05	.18	.00	.05	-.07	.11	.02	.18	-.02	.04	.09	-.03	.10
108	-.08	.16	.11	.02	-.01	-.01	-.08	.10	.04	.23*	.04	.00	.08	.11	-.10	.04
109	-.14	-.07	.29**	.12	-.02	.06	.26*	.01	-.15	.02	.26*	-.34**	.15	.09	.25*	-.19
110	-.11	-.05	.05	-.04	.01	.01	-.05	.12	.01	.07	-.07	-.09	-.08	-.13	.08	-.02
112	-.01	.06	.10	.22*	.22*	-.06	.11	.07	-.08	.14	.09	-.15	.14	-.07	.09	-.16
117	.03	.16	-.13	.13	.15	-.20	.03	.27*	.04	.23*	.07	.00	.21	.09	-.06	-.06
123	.09	.02	.03	-.02	.13	-.15	.04	-.02	.03	-.17	.17	.05	.13	-.08	-.04	.08
133	.03	.07	-.14	.09	-.01	.15	-.04	.10	.05	.10	-.06	.23*	.07	.14	-.28**	.24*
145a	.13	-.12	-.10	-.03	-.13	-.04	.01	.13	.07	.09	.17	.00	.09	-.12	-.08	-.02
146a	-.37**	-.09	-.01	-.23*	-.17	-.02	-.28**	-.02	.03	.20	-.31**	.13	.03	.11	-.03	-.01
147a	-.03	.16	.14	.10	.07	.06	.17	.03	-.02	.12	.15	-.22*	.09	.02	.14	-.12
150	-.10	-.06	-.18	-.12	-.17	.25*	-.14	-.21	.24*	-.18	.04	.17	.00	-.09	-.13	.15
151	-.18	-.34**	-.11	.10	-.13	.08	.03	.14	.08	.17	-.15	.07	-.02	.21	.03	.08
152	.07	.19	.00	-.23*	-.02	.25*	-.15	-.12	.22*	-.05	.16	.19	-.04	.09	-.01	.08
159a	-.20	.00	-.03	-.06	-.08	.00	-.17	-.16	.07	.04	.04	.05	.00	.03	-.07	.05
167a	.15	.25*	-.13	.21	.26*	-.21	-.01	.10	.15	.27*	.09	.16	.08	-.02	-.14	.12
191	-.12	.02	-.13	-.03	-.03	.07	-.15	.09	.13	.13	-.21	.21	-.33**	.02	-.11	.25*
192	.15	-.03	.29**	.12	.11	.07	.20	.04	-.20	-.20	.05	-.20	-.28**	-.36**	.16	-.28**
193	.18	-.17	-.03	.21	.10	.07	.16	.02	.07	-.03	.16	.01	-.02	-.08	.11	-.16
194	-.13	-.09	.06	.09	.03	.12	-.02	.00	.12	-.02	-.20	.11	.02	.03	.02	.00
199	.19	.02	-.02	-.15	-.09	.14	-.03	-.31**	.02	-.18	-.06	.09	-.08	-.13	-.04	.08
203	-.11	-.06	-.19	.06	.00	.10	-.17	.05	.17	.11	-.22*	.26*	.01	.15	-.19	.30**
206	-.11	.08	-.07	.13	.27*	-.09	-.03	.04	.19	.28**	-.08	.25*	.16	.06	-.37**	.14
211a	.01	-.05	-.35**	-.06	-.08	.13	-.05	-.17	.37**	.08	-.02	.20	-.06	.02	-.11	.32**
219	-.05	.25*	-.19	.22*	.09	-.24*	-.03	.15	.10	.29**	.07	.09	.07	.17	-.31**	.06
237	-.06	.05	-.08	.04	-.07	.00	.01	.06	.02	.08	-.13	-.03	.08	.19	.06	.05
246	-.12	-.10	-.02	-.19	-.24*	.43**	-.26*	-.28**	.09	-.30**	-.12	.09	-.47**	-.11	.02	.18
271	.19	-.04	-.14	.08	.04	-.04	.08	-.01	.18	-.05	-.05	.09	-.20	-.14	-.13	.10
273	-.03	-.10	-.03	.12	-.05	-.03	-.03	.06	.03	.14	.00	.07	.14	.15	-.03	.12
275	-.03	.17	-.08	.02	.12	-.08	-.09	-.14	.12	.00	-.03	.14	.10	.12	-.29**	.17
278	.06	-.06	-.15	.07	-.08	-.16	-.04	.13	.01	.25*	-.05	.09	.20	.11	-.15	.09
280	.07	.14	.16	.06	.04	-.15	.14	-.18	-.28**	-.28**	.20	-.18	.04	-.04	.19	-.15
283	.09	-.11	-.25*	.10	-.12	-.10	-.09	.14	.24*	.16	-.09	.17	.05	.07	-.15	.23*
288	.17	-.02	-.20	.05	.00	-.08	-.10	.03	.30**	.16	.10	.28**	-.13	-.07	-.30**	.25*
307	.19	-.12	-.18	-.19	-.02	.00	-.06	-.19	.16	.01	-.30**	.26*	-.11	-.08	-.21	.23*
308	.34**	.04	-.25*	-.10	-.03	.10	-.04	-.22	.14	-.18	-.16	.25*	-.13	-.18	-.21	.23*
309	.23*	-.12	-.17	-.02	.01	.17	.02	-.01	.21	.01	-.15	.18	-.19	-.17	-.23*	.19
314	.09	.08	-.41**	.03	-.06	-.04	-.14	.17	.13	.27*	-.05	.26*	.16	.01	-.23*	.17
316	.02	.11	.19	-.08	.05	.01	.04	-.06	-.24*	-.11	.14	-.02	.05	.09	.13	-.07
327c	-.18	.15	-.03	-.06	-.01	-.05	-.14	.13	.02	.16	-.07	.15	-.10	.24*	-.04	.18
330	.08	.06	-.10	-.17	-.25*	.17	-.07	-.18	.02	-.14	-.03	.19	-.10	-.13	-.09	.16

Table I

Correlations between the 16PF Scales and the Five Peer-Rating Factors

(N = 82)

		Peer-Rating Factor				
		I	II	III	IV	V
Combined A+B	A	.09	-.15	.05	-.19	.16
	B	.11	-.02	-.06	.01	.20
	C	.00	.13	-.02	.21	-.16
	E	.21	-.14	-.18	-.04	.14
	F	.27*	.09	-.36*	.06	.10
	G	-.29*	-.17	.11	-.03	-.34*
	H	.26*	.12	.00	.04	.04
	I	.21	.00	-.15	-.04	.33*
	L	.02	-.11	-.02	-.10	.11
	M	.25*	.04	-.31*	-.13	.38*
	N	.03	-.05	.01	.02	-.02
	O	-.05	-.17	-.18	-.24*	.07
	Q1	.08	.14	-.08	.16	.17
	Q2	-.09	-.12	-.15	.19	.05
	Q3	-.19	.04	.12	.12	-.14
	Q4	-.03	-.15	-.10	-.18	.04

		Peer-Rating Factor				
		I	II	III	IV	V
Form A	A	.05	-.09	.16	-.16	.16
	B	-.06	-.09	-.09	.03	-.01
	C	-.08	.05	.01	.13	-.25*
	E	.28*	-.17	-.19	-.10	.13
	F	.15	.14	-.21	.07	.01
	G	-.26*	-.20	.12	-.04	-.24*
	H	.27*	.15	.02	.00	.03
	I	.25*	.09	-.15	-.01	.27
	L	-.01	-.18	.00	-.17	.19
	M	.21	-.05	-.32*	-.22*	.27*
	N	-.04	-.04	-.07	.16	-.10
	O	.07	-.06	-.20	-.30*	.03
	Q1	.10	.13	-.05	.10	.15
	Q2	-.03	-.05	-.17	.17	.17
	Q3	-.17	-.13	.07	-.03	-.19
	Q4	-.05	-.16	-.04	-.14	.05

		Peer-Rating Factor				
		I	II	III	IV	V
Form B	A	.10	-.17	-.07	-.18	.12
	B	.24*	.06	-.02	-.01	.35*
	C	.07	.16	-.04	.20	-.03
	E	.06	-.05	-.11	.05	.10
	F	.32*	.02	-.40*	.06	.16
	G	-.22*	-.06	.07	.03	-.36*
	H	.22*	.07	-.02	.07	.04
	I	.07	-.12	-.07	-.05	.28*
	L	.04	.00	-.05	.00	-.01
	M	.18	.09	-.17	-.01	.33*
	N	.05	-.02	.07	-.12	.01
	O	-.12	-.20	-.11	-.12	.07
	Q1	.02	.08	-.07	.15	.11
	Q2	-.13	-.14	-.07	.13	-.11
	Q3	-.12	.09	.11	.16	-.07
	Q4	.00	-.05	-.18	-.16	.03

* $p < .05$

Table J

Correlations between the 57 O-A Battery Variables and the Five Peer-Rating Factors

(N = 82)

O-A Meas.	Peer-Rating Factor I	II	III	IV	V
6a	.13	-.10	-.18	-.07	.07
7	.04	.16	-.24*	.06	.14
9	-.02	.02	-.06	-.12	.23*
25a	.12	.13	.02	-.10	.26*
30	.01	.09	-.05	.02	-.17
31	.06	.05	.11	-.04	.01
34	.18	-.11	-.15	-.05	.10
35	-.07	.02	-.14	-.06	.07
36	.19	-.04	-.07	-.09	.15
38a	-.09	.00	-.20	.12	-.12
53	.21	-.04	-.19	.09	-.10
67a	.01	-.12	-.04	.03	-.11
87	-.21	-.01	-.09	.01	-.27*
97	-.03	.02	.01	-.17	.16
100	.16	.04	-.04	-.05	.11
101a	-.01	-.05	-.10	-.14	-.10
102	.21	.07	-.03	.04	.26*
108	.03	.06	-.05	-.06	.05
109	.03	-.07	-.09	.03	-.05
110	-.02	.21	.14	-.09	.20
112	.13	-.16	-.20	-.07	.07
117	.13	-.05	-.15	-.09	.47**
123	-.07	-.12	.02	-.15	.02
133	.04	-.09	-.07	.03	.07
145a	.08	.23*	.05	.16	.13
146a	.05	.19	-.08	-.03	-.05
147a	.00	.11	-.03	.03	.04
150	-.14	.01	.11	-.07	-.11
151	.08	-.01	.04	-.05	.11
152	-.20	.01	-.07	.16	-.20
159a	-.33**	-.08	-.12	.09	-.30**
167a	.11	-.09	-.21	-.06	.39**
191	-.13	-.10	.03	-.10	.09
192	.02	.02	-.18	.00	-.14
193	-.01	-.06	-.14	.07	-.11
194	.02	.06	-.03	.01	.00
199	-.12	-.15	.01	-.03	-.16
203	-.15	-.07	-.05	.07	-.02
206	.01	.07	-.25*	.12	-.07
211a	-.10	-.16	-.01	-.06	-.14
219	.20	-.08	-.06	-.06	.24*
237	.06	.07	.14	.23*	.12
246	-.25*	-.16	.23*	-.06	-.31**
271	.08	-.02	-.05	.08	.00
273	-.13	-.11	.05	-.12	.21
275	.06	-.03	-.22*	.05	-.02
278	-.18	.12	-.03	.09	.21
280	.02	.00	.14	.02	-.02
283	.00	-.10	.02	-.12	.13
288	.08	-.09	-.12	-.17	.06
307	.16	-.01	-.22	-.09	-.03
308	.01	-.14	-.04	-.14	-.02
309	.09	-.07	-.15	-.16	-.10
314	.03	-.11	-.15	-.03	.20
316	-.06	.25*	.00	.17	-.09
327c	-.05	.05	-.10	-.08	.03
330	-.10	-.07	.04	-.13	.00

* $p < .05$

** $p < .01$

Table K

Correlations between the Five Peer-Rating Factors and the 18 O-A Battery Factor Scores

(N = 82)

O-A Battery Factor	Peer-Rating Factor I	II	III	IV	V
1	.09	-.10	-.16	-.11	-.08
2	.02	.10	.18	-.02	-.10
3	-.02	.09	-.03	-.03	.06
4	-.07	.13	-.11	.12	-.16
5	-.10	-.03	.03	-.12	.05
6	-.01	.19	.07	.01	-.04
7	-.04	-.09	.02	-.14	.20
8	-.13	-.01	-.13	-.07	-.10
9	-.07	-.20	.22*	-.05	-.08
10	.38**	.11	-.12	-.01	.55**
11	-.08	-.03	-.08	-.03	.29**
12	.04	.11	.05	-.08	.11
13	-.14	-.04	-.12	.11	-.12
14	-.05	-.12	-.07	-.11	.02
15	.14	.08	.20	-.08	.25*
16	-.12	.01	.15	.12	-.12
17	.13	-.08	-.08	.09	-.01
18	-.12	.08	.24*	.01	.01

* $p < .05$

** $p < .01$