

AD-A105 385

NAVAL HEALTH RESEARCH CENTER SAN DIEGO CA
DIMENSIONALITY AND DISTINCTIVENESS OF THE PERSONALITY RESEARCH --ETC(U)
FEB 79 L W BAILEY, M RICHLIN, J D PHELAN
NAVHLTHRSCHC-79-6

F/G 5/10

MIPR-7801

NL

UNCLASSIFIED

[X] []
ADA
TOP SECRET



END
DATE
FILMED
(10-8)
DTIC

LEVEL II

2

AD A105385

DIMENSIONALITY AND DISTINCTIVENESS OF THE
PERSONALITY RESEARCH FORM (FORM A)

L. W. BAILEY

M. RICHLIN

J. D. PHELAN

REPORT NO. 79-6 ✓



FILE COPY

DTIC
ELECTE
OCT 13 1981
S D

NAVAL HEALTH RESEARCH CENTER

P. O. BOX 85122
SAN DIEGO, CALIFORNIA 92138

NAVAL MEDICAL RESEARCH AND DEVELOPMENT COMMAND
BETHESDA, MARYLAND

DISTRIBUTION STATEMENT A
Approved for public release
Distribution Unlimited

81 10 9 104

Dimensionality and Distinctiveness of the
Personality Research Form (Form A)*

LCDR Larry W. Bailey, MSC, USNR

Milton Richlin, Ph.D.

James D. Phelan

Accession For	
NTIS GRA&I	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A	

Naval Health Research Center
P.O. Box 85122
San Diego, CA 92138-9174

* Report No. 79-6. Research supported by Department of the Army, MIPR 7801 dtd 13 Jan 78 and Department of the Navy #N0001879WR007. The views presented in this paper are those of the authors. No endorsement by the Departments of the Navy or Army have been given or should be inferred.

DTIC
S
1981
D

Approved for release
Distribution Unlimited

ABSTRACT

The purpose of the present study was to determine the factor structure and scale loadings of the 15-scale Form A of the Personality Research Form (PRF-A). Analyses were based upon normative data for males and females. Principle components analyses yielded four comparable dimensions for both groups: Striving, Self-Enhancing, Unconstrained, and Socially Involved. The factor structure was found to be less complex than that for 22-scale versions of the PRF, and the components correspond to important aspects of personality functioning. Results indicate the potential usefulness of the four PRF-A components in future research. Precautions regarding interpretation of the results are discussed.

Dimensionality and Distinctiveness of the
Personality Research Form (Form A)

Larry W. Bailey, Milton Richlin, and James D. Phelan
Naval Health Research Center, San Diego, California

The Personality Research Form (PRF), developed by Jackson (1967, 1974) for measurement of salient aspects of normal personality functioning, is currently used in one of three general formats: Parallel forms A and B consist of 330 items equally divided into 15 personality scales; parallel forms AA and BB contain the same items and scales as the PRF-A and PRF-B, with an additional set of seven 20-item scales; and a research form (PRF-E) which is a shorter version of the 22-scale instruments (16-item scales).

The present authors are conducting a series of studies involving several groups of people that responded to the PRF-A. The research design entailed an assessment of general characteristics or patterns that might be reflected in personality factors. Comparisons among groups were to include the broader dimensions of personality style along with the more specific attributes measured by the 15 PRF-A scales.

Unexpectedly, a review of the literature revealed that factor analyses of the PRF-A have not been reported. Jackson (1974), on the basis of his work with the several formats of the PRF, describes seven "superordinate

categories" which were suggested in part on the basis of theoretical considerations and in part upon the results of factor analytic studies. The PRF-AA and PRF-E have been factor analyzed utilizing both normative data (Jackson, 1974; Lay & Jackson, 1969) and independent samples (Skinner, Jackson, & Rampton, 1976; Stricker, 1973), and these forms have also been combined with other personality indices in multimethod factor analyses (Edwards, Abbott, & Klockars, 1972; Siess & Jackson, 1970). However, the major dimensions obtained from the 22-scale inventories cannot be generalized to responses to the 15-scale PRF-A. Thus, there remains a need for an understanding of the factor structure and differential scale loadings of the PRF-A.

The purpose of the present study was to determine the major components being assessed in the PRF-A, and to establish the extent to which the respective scales contribute to the derived factors. It was anticipated that the factor structure of the shorter inventory would be less complex than that reported for the 22-scale instruments. In addition to the theoretical value of evaluating the interrelationships among the 15 personality scales of the PRF-A, the primary practical benefit of the investigation is that the results may be used in comparative studies in which the broader dimensions of personality are of interest.

Method

The present analyses were based upon normative data for both males and females, as reported in the PRF manual (Jackson, 1974). Responses to

the PRF scales were obtained from 1029 male and 1002 female students from several North American colleges and universities. Correlational matrices developed from these data (Jackson, 1974, p. 30) provided the basis of the principle components analyses of the present study. The factors which emerged were rotated according to varimax criteria.

Results and Discussion

The components analyses of the PRF correlational matrices yielded four dimensions for both males and females. The components which emerged for males accounted for 61.2 percent of the trace; those derived for females accounted for 62.8 percent of the trace. The nature and composition of the respective components were notably similar for males and females, and reflected several distinct aspects of personality functioning (see Table 1).

Insert Table 1 about here

For both groups the first component was dominated by the Achievement and Endurance scales, suggesting needs to excel in task-oriented endeavors and willingness to persevere in the face of challenge. Indices of the pursuit of knowledge (Understanding) and of a serious-minded approach to life (negative loadings on Play) also contributed to this component in each group. The salient theme seemed to be that of Striving. For males, Dominance met the criterion for inclusion in this component; for females, the variable of Social Recognition (negative loading) was included.

The second component, termed Self-Enhancing, reflected tendencies toward behavior which would be deemed attention-getting (Exhibition), controlling (Dominance, Aggression), and/or pleasure-seeking (Play). For males there was the additional contribution of the Social Recognition scale, suggesting concerns regarding the approval and acceptance of others.

The main elements of the third component were scales described by Jackson (1974) as measures of impulse expression and control (i.e., Impulsivity, and negative loadings on both Harmavoidance and Order). The features of spontaneity and carelessness, combined with the additional positive loading of the Autonomy scale for males, suggested the label of Unconstrained.

Finally, measures of being Socially Involved comprised the fourth component. Positive loadings of Affiliation and Nurturance revealed a friendly and helpful attitude toward others, while negative loadings on Autonomy indicated an orientation of interpersonal attachment and involvement. The salient elements of this component, as well as their relative contributions, were the same for both normative groups.

As anticipated, the factor structure was less complex than that found for the 22-scale versions which have been shown to yield five factors for adult respondents (Lay & Jackson, 1969; Skinner et al., 1976) and six factors for adolescents (Stricker, 1973). Yet, the four PRF-A components -- Striving, Self-Enhancing, Unconstrained, and Socially Involved -- correspond with important and distinct aspects of personality functioning. Further, the similarities of factor structure and relative scale loadings for males and females indicate that the same constructs

may be used for both groups.

The results of the present investigation indicate the potential usefulness of incorporating the four basic dimensions into comparative personality studies which involve the PRF-A, through calculation of salient factor scores. However, interpretation of the results of such research must take into account the following: (a) The first component consists of scales which have been shown to be significantly influenced by social desirability. Braun & Asta (1969) found that instructing subjects to "make a good impression" in their responses to the PRF-A significantly affected the scores on all four of the scales which are common to males and females on the Striving component (i.e., Achievement, Endurance, Understanding, Play). (b) For males, the Dominance scale loads positively on both Striving and Self-Enhancing. A review of the other elements involved in these components suggests that there may be a distinction between task-oriented and social dominance. With these phenomena taken into consideration, the four components may be utilized in future research in which the PRF-A is involved as an instrument of personality assessment.

References

- Braun, J. R., & Asta, P. Changes in Personality Research Form scores (PRF-A) produced by faking instructions. Journal of Clinical Psychology, 1969, 25, 429-430.
- Edwards, A. L., Abbott, R. D., & Klockars, A. J. A factor analysis of the EPPS and PRF personality inventories. Educational and Psychological Measurement, 1972, 32, 23-29.
- Jackson, D. N. Personality Research Form Manual. Goshen, N. Y.: Research Psychologists Press, 1967.
- Jackson, D. N. Personality Research Form Manual (2nd ed.). Goshen, N. Y.: Research Psychologists Press, 1974.
- Lay, C. H., & Jackson, D. N. Analysis of the generality of trait-inferential relationships. Journal of Personality and Social Psychology, 1969, 12, 12-21.
- Siess, T. F., & Jackson, D. N. Vocational interests and personality: An empirical integration. Journal of Counseling Psychology, 1970, 17, 27-35.
- Skinner, H. A., Jackson, D. N., & Rampton, G. M. The Personality Research Form in a Canadian context: Does language make a difference? Canadian Journal of Behavioral Science, 1976, 8, 156-168.
- Stricker, L. J. Personality Research Form: Factor structure and response style involvement. Proceedings of the 81st Annual Convention of the American Psychological Association, 1973, 8, 13-14. (Summary)

Table 1

Rotated Component Structure Loadings of PRF-A Scales

Factor	(Males (N = 1029))		Females (N = 1009)	
	% Variance Accounted For	Rotated Component Structure Loadings*	% Variance Accounted For	Rotated Component Structure Loadings*
"Striving"	21.6	Achievement (.75) Endurance (.73) Understanding (.54) Dominance (.48) -- Play (-.43)	20.0	Achievement (.72) Endurance (.76) Understanding (.58) -- Social Recognition (-.43) Play (-.41)
"Self-Enhancing"	17.5	Exhibition (.69) Dominance (.55) Aggression (.59) Social Recognition (.54) Play (.44)	16.4	Exhibition (.75) Dominance (.69) Aggression (.51) -- Play (.40)
"Unconstrained"	13.7	Impulsivity (.61) Harmavoidance (-.57) Order (-.53) Autonomy (.42)	8.4	Impulsivity (.71) Harmavoidance (-.57) Order (-.57) --
"Socially Involved"	8.4	Affiliation (.78) Nurturance (.53) Autonomy (-.48)	18.0	Affiliation (.86) Nurturance (.64) Autonomy (-.56)

*Only loadings of $\pm .40$ or greater are shown.

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER 79-6	2. GOVT ACCESSION NO. AD A105385	3. RECIPIENT'S CATALOG NUMBER (9)
4. TITLE (and Subtitle) Dimensionality and Distinctiveness of the Personality Research Form (Form A).		5. TYPE OF REPORT & PERIOD COVERED Final rept.
7. AUTHOR(s) Larry W. Bailey, Milton Richlin, and James D. Phelan		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Health Research Center P.O. Box 85122 San Diego, CA 92138-91774		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS MIPR-7801 dtd 13 Jan 78 N0001879WR0007
11. CONTROLLING OFFICE NAME AND ADDRESS Naval Medical Research & Development Command Bethesda, MD 20014		12. REPORT DATE 26 February 1979
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) Bureau of Medicine & Surgery Department of the Navy Washington, DC 20372		13. NUMBER OF PAGES 9
		15. SECURITY CLASS. (of this report) Unclassified
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited (14) NAVHLTHRSCH-79-6		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Factor analysis; Personality Research Form; personality assessment		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The purpose of the present study was to determine the factor structure and scale loadings of the 15-scale Form A of the Personality Research Form (PRF-A). Analyses were based upon normative data for males and females. Principle components analyses yielded four comparable dimensions for both groups: <u>Striving</u> , <u>Self-Enhancing</u> , <u>Unconstrained</u> , and <u>Socially Involved</u> . The factor structure was found to be less complex than that for 22-scale versions of the PRF, and the components correspond to important aspects of personality.		

DD FORM 1 JAN 73 1473

EDITION OF 1 NOV 68 IS OBSOLETE
S/N 0102-LF-014-6601

UNCLASSIFIED

391642
SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

functioning. Results indicate the potential usefulness of the four PRF-A components in future research. Precautions regarding interpretation of the results are discussed.

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)