To the Graduate Council:

I am submitting herewith a dissertation written by Carolann Gadawski Freid entitled "Personality Comparisons Between Outstanding Creative Craftswomen, Women Artists, and Women in the General Population." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Home Economics.

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PERSONALITY COMPARISONS BETWEEN OUTSTANDING CREATIVE CRAFTSWOMEN, WOMEN ARTISTS, AND WOMEN IN THE GENERAL POPULATION

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Carolann Gadawski Freid

March 1979

1378812

DEDICATION

For my father, whose untimely death made many promises difficult to keep; I dedicate this work to you and my mother's mother as a small token of my love and respect for all you both have given me.

ACKNOWLEDGEMENTS

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ABSTRACT

The purpose of this study was to obtain a personality profile of outstanding and highly creative women in crafts, and to determine whether they differed from other women artists and from women in the general population. It was hypothesized that women in crafts would have personality characteristics similar to persons in other creative fields; it was further hypothesized that women in crafts would have personality characteristics that differentiated them from women in the general population.

The sample consisted of 69 highly creative women in crafts. Of the 69 women contacted for the study, 38 women completed and returned the test materials. The 16 Personality Factor Questionnaire was used to collect the data. Data were analyzed by the use of *F* tests to test for homogeneity of variances and *t* tests to test for differences between mean scores on the 16 PF.

The results of the *t* tests indicated that women in crafts differed significantly from women in general on nine factors of the 16 PF. Women in crafts were more aloof, intelligent, aggressive, practical, mistrusting, imaginative, unpretentious, radical and independent than women in general. Women in crafts and women artists had similar scores on 14 of the 16 PF. Women in crafts were more unpretentious and tough-minded than women artists.

The data collected in this study supported the findings of other researchers. The personality profile projected by women in crafts was consistent with the personality profile projected by creatives in other studies.

TABLE OF CONTENTS

CHAPTER		PAGE
I.	INTRODUCTION	1
II.	REVIEW OF LITERATURE	6
III.	METHODS	12
IV.	ANALYSIS AND DISCUSSION OF THE DATA	18
V.	SUMMARY AND CONCLUSIONS	26
BIBLIOGRAPHY		33
APPENDICES		39
APPENDIX A.	16 PF DEFINITIONS	40
APPENDIX B.	INFORMATION QUESTIONNAIRE	45
APPENDIX C.	COVER LETTER	46
APPENDIX D.	INFORMED CONSENT LETTER	47
APPENDIX E.	16 PF COVER SHEET	48
APPENDIX F.	16 PF TEST PROFILE	49
VITA		50

CHAPTER I

INTRODUCTION

The nature and study of creativity has been recognized as a viable research area for some time. The majority of work falls into one of four categories: (1) the creative person, (2) the creative product, (3) the creative process, and (4) the creative environment. Much of the research has focused on the cognitive aspects of creative ability (Torrance, 1962; Guilford, 1959; Getzels & Jackson, 1962), and an increasing number of researchers have attempted to isolate the distinguishing characteristics of highly creative and productive individuals (MacKinnon, 1962a; Helson, 1966b, 1967, 1968; Bachtold, 1973). Their research has suggested not only a commonality of traits or characteristics shared in part by highly creative persons, but also the possibility that differences exist within and between groups of outstanding creative individuals.

Work by MacKinnon (1962a), Barron (1961), and Cattell (1959) involved the study of highly creative men in mathematics, physics, biology, architecture and art, and a small number of creative women. Using a battery of tests, they found certain distinguishable characteristics of the highly creative members of these groups. Highly creative persons were seen as original, artistic, intelligent, individualistic, complicated, imaginative, versatile, clear-thinking and ingenious.

MacKinnon and his associates also believed that although a generality of traits existed, typological, stylistic and sex differences might also be found to exist among creative persons. Helson's (1965, 1966b, 1967a, 1967b, 1971) early studies were directed at looking at differences

as well as similarities among creative individuals. Her work on male and female mathematicians suggested personality differences associated with creativity and with sex differences.

Bachtold and Werner (1973) in their study of gifted women psychologists also found that in spite of strong similarities between successful academic males and male and female psychologists, "women psychologists, as a group scored higher than successful academic males on intelligence, superego strength, and unconventionality, and lower than academic men on self-sentiment" (p. 242).

Cross, Cattell and Butcher's (1967) study of creative artists examined similarities and differences of personality traits between artists, crafts students, and a control group. The results of their research indicated only slight differences on the 16 PF for artists and craft students, but the scores for craft students were intermediate between the artists and controls on every factor, suggesting in part, that subtle differences might well exist between groups within the total highly creative population.

Although highly creative individuals share similar traits, there is evidence to suggest that differences exist between groups of highly creative persons (e.g. architects, artists, and biologists). Whether these differences can be attributed to stylistic, typological or sex differences is an empirical question which forms the basis of this study along with the specific questions that follow:

(1) Are the personality characteristics of women in crafts similar to other highly creative individuals in other fields?

(2) Do the personality characteristics of women in crafts differentiate them from women in the general population?

(3) Are there differences existing between groups within the

total highly creative population?

Definition of Terms

The following definitions of terms are used in this study. Definitions for the factorial terms used in the Sixteen Personality Factor Questionnaire (16 PF) are included in the Appendix.

Crafts. A term used to describe those art media in which form, function, and design are operative, or more specifically the term encompassing the media of textile design, fiber construction, clay, metal, wood, and glass.

Clay. An artistic medium utilizing earthen materials to produce sculptural, relief, or three dimensional work.

Fiber. An artistic medium using spun or unspun natural or synthetic filaments in off loom and on loom constructions, and/or the application of designs utilizing a variety of techniques onto woven surfaces.

Glass. An artistic medium utilizing molten and solid elements to produce work in surface, relief, three-dimensional, and/or sculptural form.

Metal. An artistic medium utilizing certain elements to produce work in surface, relief, three-dimensional, and/or sculptural form.

Wood. An artistic medium using wood in some form to produce work in surface, relief, three-dimensional, and/or sculptural form.

Craftswoman. Professional female artist who works in the media of textile design, fiber construction, clay, metal, wood, and/or glass.

Creative. Having the ability to produce things and/or ideas of an original, expressive and imaginative nature.

Creativity. The process, the act, or the fact of creating.

Creative Characteristics. A set of attributions which includes: originality, artistic ability, intelligence, individualism, imagination, versatility, ability to think clearly, ingenuity and complexity. This list is only suggestive and not exclusive or inclusive.

Creative Traits. A term used interchangeably with the term creative characteristics and meaning the same.

Raw Scores. The sum of answer scores for each factor on the 16 PF.

Sten Scores. The term comes from "standard ten," and indicates a distribution of raw scores over ten equal-interval standard score points from 1 through 10. Raw scores are converted to stens by means of a standardization table.

Typological. A term used to indicate psychological qualities or features that distinguish one person or group from another.

Assumptions of the Study

The following assumptions are germane to this study. They are:

(1) Information gained about groups of highly creative individuals contributes to the general understanding of creativity.

(2) Highly creative individuals share common traits.

(3) An examination of creativity in the female population would be highly desirable.

Statement of the Problem and Purpose of the Study

The study of creativity in adults has been predominantly limited to the male population (Dellas & Gaier, 1970). here is little known about creative women in general, and in particular creative women in crafts. Therefore, the purpose of this study was to obtain a personality profile of

highly creative women in crafts, and to determine whether this profile differed from other women artists and from women in the general population.

Research Questions

The following hypotheses will be examined and tested in this study. They are as follows:

Hypothesis 1. Women in crafts evidence personality characteristics similar to persons in other creative fields.

Hypothesis 2. Women in crafts evidence personality characteristics that differentiate them from women in the general population.

CHAPTER II

REVIEW OF LITERATURE

The literature which is most germane to this study concerns the investigation of characteristics of highly creative persons and those studies which have examined the characteristics of highly creative women. What follows is a review of the most pertinent research in both areas.

The earliest research connecting personality and creativity was done by Galton (1883), Cattell (1903), and Spearman (1931). Galton suggested that mental abilities and propensities toward creativity were largely inherited and followed certain observable laws. His work created interest in the examination of those factors which appeared to be common in the lives of outstanding individuals. Cattell (1903) took a similar approach in "A Statistical Study of Eminent Men." While the validity of his research is questionable, he nonetheless contributed to creativity theory by suggesting that great men had similar backgrounds, life styles and traits.

Spearman's analysis of creativity in Creative Mind, dealt with the nuances of the creative process. Based on his investigation, he theorized that creative individuals engaged in a number of interrelated activities which followed certain quantitative and qualitative principles. Furthermore, he proposed the idea that creative traits were found to some degree in all individuals.

The research by Roe (1946a, 1953) was directed at examining individual differences between high creatives. Her initial work was a detailed study of the the personality characteristics of eminent scientists and artists. Taking a psychoanalytical approach, she gave the TAT and Rorschach test to a number of outstanding scientists, and concluded that

highly creative scientists shared the following characteristics: independence of mind, self-sufficiency, autonomy of judgement, fairly high intelligence (as opposed to very high intelligence) and a very high degree of persistence. Moreover she found personality differences to be more crucial to original and creative accomplishments than to intelligence. The same characteristics used to describe highly creative scientists were also used to describe artists in another study. While she concluded that many of these characteristics could apply to other groups of highly successful professional men, her subjects did share a number of traits which clearly separated them from the general population.

The work by Guilford (1959) also merits attention because of his extensive factor analyses of personality and creativity. The relevance of his work to personality and creativity theory is the implication that creativity is a multidimensional variable, that creative abilities are largely outside the realm of intelligence, and that creative abilities are widely distributed throughout the population.

Research directed at the identification and measurement of personality characteristics in mature creative individuals was the impetus of work by MacKinnon (1962b), Barron (1969), and Cattell (1959). While their approaches and populations differed, they each isolated a number of similar traits which were characteristic of the most highly creative members of those they studied.

Barron and Welsh found (1952) that highly creative individuals had a preference for cognitive complexity. Stylistically, they approved of asymmetrical, rich and dynamic information and opposed simple and symmetrical information. MacKinnon's high creatives showed a decided preference for aesthetic and theoretical concerns. While certain similarities emerge, other researchers were interested in looking at stylistic, sex, and

typological differences.

Ravena Helson (1965, 1966b, 1967a, 1967b, 1971) reported differences in the creative personality of females as compared to males. In an initial study on sex differences in creative style, she found that creative mathematicians of both sex differed from comparison subjects on two factors on the California Psychological Inventory. In general, her findings were that creative mathematicians, male and female, scored higher on flexibility, lower on achievement by conformity, and differed from other subjects with regard to lack of compulsivity and in terms of their emotional involvement in research. Creative male mathematicians demonstrated greater self-assurance and professional participativeness, while "creative women were less self-accenptant, less sociable and less motivated to achieve by a conformist pattern" (1967a, p. 229).

In other studies of creative women mathematicians, Helson found that as a whole this group could be characterized as follows:

> (they showed a) rebellious independence, narcissism, introversion, and a rejection of outside influence, strong symbolic interests and a marked ability to find self-expression and self-gratification in directed research acitivty; (and) flexibility or lack of constriction, both in general attitudes and in mathematical work (p. 217).

These same traits are characteristic of creative individuals in general, but according to Helson, "appear more clearly in creative women mathematicians then they do in creative men mathematicians" (p. 217).

Bachtold and Werner's (1973) study of gifted women psychologists indicated that while similarities existed between male and female psychologists and successful academic males that women psychologists differed in several respects. They tended to be "more intelligent, socially aloof, dominant, serious, adventuresome, sensitive, flexible, imaginative, insightful, unconventional, secure, self-sufficient, and less anxiety prone" (p. 242).

In still another study involving creative women, Bachtold and Werner (1972) found that the same characteristics used to describe gifted women psychologists were in many ways similar to the characteristics used to describe gifted women authors and artists. Compared with women in the general population, women authors and women artists were found to be "more aloof, intelligent, emotional, aggressive, adventurous, imaginative, radical, and self-sufficient, and less group dependent and controlled" (p. 311).

Interest in the study of personality differences and similarities of creative individuals has been the basis of several other studies which warrant attention. Drevdahl and Cattell (1958) examined the personality profiles of a group of well known, active and productive artists and writers. They compared these profiles with the general population. Both groups differed from the normal population by being more adventurous, emotionally sensitive, bohemian, radical, self-sufficient, and emotionally mature. Among the creatives studied, the artists were more bohemian and less cyclothymic and intelligent than writers. Writers also tended to be less emotionally sensitive.

Cross et al. (1967) found significant differences in mean scores for artists and a matched control group in a study involving artists, craft students and a control group. The scores for craft students fell between the scores for artists and controls, suggesting within group differences for this creative population. Again the evidence indicates a commonality of traits among creative individuals but also points to differences between creative groups.

The work by Rees and Goldman (1961) concentrated on the relationship between creativity and personality. Working from a psychoanalytical model, they administered two personality inventories, the Guilford-Zimmerman

Temperament Survey and the Minnesota Multiphastic Personality Inventory, to a population of high, middle and low creatives. They found that there were no significant differences between the high and middle range group or between the middle and low range group but that significant differences on several personality factors were found to exist when comparing the high and low creatives. While the total population shared a number of personality characteristics related to creativity, the most creative individuals were characterized by more impulsiveness, lack of restraint, and a tendency "to be more aggressive, domineering and ascendant" (p. 159).

Barron and Welsh's (1952) study of successful and creative artists examined the relationship between aesthetic preference and personality style. Using a Figure Preference Test, they isolated 40 items significantly disliked by artists and 25 items significantly liked by artists. The liked items tended to be complex-asymmetrical, while the disliked items tended to be simple-symmetrical. While the results of their study only suggest the possible relationship between personality variables and artistic figure preferences for highly creatives, it nonetheless indicated that a relationship might well exist but would require further investigation.

What emerges from this review of literature seems clear; while there is the semblance of a firm theoretical hold in the area of personality and creativity, there is a need for further research in the area of personality differences within and between groups of the total creative population.

Freeman (1968) and Dellas & Gaier (1970) have indicated in their multidimensional research reviews of creativity the importance and

need for research on creative women. With the exception of the work by Helson and Bachtold, there have been relatively few studies which have investigated creativity in the adult female population.

The literature review suggests then, two areas of importance for this study. First, studies dealing with creativity have been predominantly limited to the male population. Therefore, it is highly desirable to collect information on creative women. Secondly, there is need for research on creative persons in various fields. Therefore it is cogent to examine and identify the salient characteristics of highly creative individuals in crafts.

CHAPTER III

METHODS

Sample Selection

To be considered for participation in the study a subject had to be a female who worked in fiber, clay, metal, glass and/or wood. Subjects also had to have been outstanding members in their field.

Sixty-nine highly creative craftswomen were selected in a two part process for this study. Initially 125 names were obtained from three sources: Who's Who in American Art, National Endowment for the Arts Crafts Fellowship Recipients, and Fellows of the American Crafts Council. A separate list was made for each source.

A panel of three judges was selected to review the three lists. Panel members were selected on the basis of their leadership roles on a national and international level, and because of their involvement in crafts. One panel member is the editor of a leading journal, another is a professor emeritus and former director of a leading crafts school, and the third panel member is the past president of a national crafts organization and presently a professor and director of a nationally recognized arts and crafts school.

Each panel member was sent the lists of names and asked to select those craftswomen who had achieved a high degree of excellence in their work and were considered outstanding in their field. Panel members were asked to return the reviewed lists two weeks after receiving them. The lists were independently judged by the panel members.

Once the lists were returned, the final selection of the sample was made by this researcher. In order to be considered for inclusion in

this study, a subject had to have been selected by two of the three judges. The final sample consisted of 69 outstanding craftswomen.

Methods of Procedure

Each subject was mailed a packet which contained a cover letter explaining the purpose of the study, a consent form letter, the 16 PF Questionnaire Form A test booklet, an answer sheet, information questionnaire and a stamped, addressed return envelope. This material is included in the Appendix.

Participants were requested to return completed and uncompleted materials within two weeks after receiving the packet. This seemed like a reasonable amount of time to complete and return the questionnaire. Follow-up cards were mailed out ten days after the packets had been mailed. Subjects were guaranteed complete confidentiality and assured that only summary information would be reported.

Sample Characteristics

Of the 69 subjects contacted for the study, 38 completed and returned the questionnaire. This is a 55% return, which was greater than expected for a mail questionnaire with such a highly select population. Since no contact was made prior to sending out the test materials, it was anticipated that the return would be lower because all of the respondents are active craftswomen. Thus, participation in a study of this nature would have resulted in time being taken away from their own work. It was also assumed that the very characteristics which define highly creative people would affect and influence their participation in this or any other study.

Eleven prospective subjects returned the test materials uncompleted,

and all but two provided a written explanation concerning their decision not to participate in the study. Responses of subjects and non-subjects to the study appear in Chapter V. Twenty prospective participants did not return any of the materials sent.

Age range for the 38 subjects was 30 to 76 with a mean age of 47.1. All of the subjects had the equivalent of a bachelors degree. Thirty-three subjects had either a Masters of Arts of a Master of Fine Arts, and one participant had a Ph.D. in an outside area.

Subjects were asked to list the medium or media they worked in. Eight subjects listed clay, 18 were in fiber, 14 were in metal, 1 was in wood, 4 in multi-media, 2 were in other media, and 3 did not return the information form indicating a medium. None of the subjects worked in glass.

Instrumentation

An objective personality questionnaire was chosen to collect the information on personality characteristics needed for this study. A short information form was utilized to collect background information on the subjects. Participants were asked to list past and present artistic media, age, educational background, and significant awards. It was estimated that the information form took from 10 to 20 minutes to complete.

The Sixteen Personality Questionnaire (16 PF Form A). The 16 PF (Cattell, et al., 1970) was selected to assess personality characteristics because of its reliability, broad research base and appropriateness to this study. A discussion of the direct concept validity, and direct concrete validity, indirect or circumstantial concept validity, and direct concrete validity for the 16 Personality Factor Questionnaire appear in the 16 PF Handbook (Cattell, et al., 1970). The information on validity and factor trueness

through factor analysis suggests that validity estimates are good for groups and less reliable for individuals. Test-retest reliabilities are quite high. The 16 PF dependability coefficients (n=146) ranged from 58 to 83 (IPAT, 1972, p. 10). Adcock (1970) also reports the following: "split-half reliabilities (n=450) range from .71 to .93, 10 coefficients being above .80....this is quite good; but even more pleasing is the fact that validities (based on factor loading) range from .73 to .96 with eleven coefficients exceeding .80" (Section 5, p. 113).

The 16 PF permits the assessment of the main dimensions of personality characteristics through factor analysis (Adcock, 1970). It consists of 187 items with multiple choice responses and is self-administered. The test takes approximately 40 to 50 minutes to complete. The 16 PF yields bipolar measures of personality characteristics, identified by alphabetical symbols (Bachtold, 1976).

The dimensions for which scores are derived are given below.

A-	Aloof	vs	Sociable	A+
B-	Dull	vs	Bright	B+
C-	Affected by feelings	vs	Emotionally Stable	C+
E-	Submissive	vs	Dominant	E+
F-	Serious	vs	Enthusiastic	F+
G-	Expedient	vs	Conscientious	G+
H-	Shy	vs	Adventurous	H+
I-	Tough	vs	Sensitive	I+
L-	Acception	vs	Suspicious	L+
M-	Conventional	vs	Imaginative	M+
N-	Naive	vs	Sophisticated	N+
O-	Confident	vs	Insecure	O+
Q-	Conservative	vs	Radical	Q_1+
Q^1-	Group-dependent	vs	Resourceful	Q^1_2+
Q^2-	Impulsive	vs	Controlled	Q^2_3+
Q^3-	Composed	vs	Excitable	Q^3_4+
Q^4				

The 16 PF can be scored for broad second-order factors and for the primary personality factors indicated by the alphabetical designation

A through Q_4. Eight second-order factors have been identified and four are indicated by the alphabetical designation Q_1 through Q_4. Second order factors were not computed or analyzed in this study.

Data Preparation and Analyses

All analysis of data was done both manually and at The University of Tennessee Computer Center on an IBM 360/65 using SPSS 7. Tests were hand scored with a stencil key. Sums were obtained by counting marks through the stencil corresponding to each factor. The total sum represented a raw score for each factor which was then converted to a sten score. A standardization table was used to convert raw scores to stens. Scores were converted so that they could be analyzed in relation to scores obtained by other individuals in some defined population (e.g., female adults, normal adults, college students).

Means and standard deviations for women artists and women in general were obtained from other studies (Bachtold & Werner, 1973; IPAT, 1978). Means and standard deviations were computed for women in crafts.

The data from the information form and the 16 PF answer sheets were transferred to a code sheet and key punched on computer cards. *F* tests were used to test for homogeneity of variance because of differences in the population sizes for craftswomen, women artists and women in the general population. Two *t* tests were used to test H_1 and H_2, that outstanding craftswomen and creative women artists have similar personality characteristics which differ from women in the general population. In essence, the computed means of craftswomen on each of the 16 dimensions were compared with means of women artists (Bachtold & Werner, 1973) and means of women in the general population (IPAT, 1978). A total of 32 *t* tests were computed to compare the means of

the craftswomen with the means of the other two groups on the 16 dimensions. This analysis is depicted in the design matrix below.

	Groups		
Factors	Outstanding Craftswomen	Creative Women Artists	Women in Gen. Pop.
A. Aloof v. Sociable	$\overline{X}$	$\overline{X}$	$\overline{X}$
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
Q_4 Composed v. Excitable			

CHAPTER IV

ANALYSIS AND DISCUSSION OF THE DATA

The analysis of data collected in this study will be discussed in three parts; these are: (a) treatement of the data, (b) results, and (c) discussion.

Treatment of the Data

Three F tests were used to test for the homogeneity of variances between each group on each factor of the 16 PF. No significant ($p < .01$) differences were found. F test results are presented in Table I.

To determine which characterisitics of the craftswomen differed from women artists and from women in general, mean sten scores and standard deviations were computed for the craftswomen. Means and standard deviations for women artists were obtained from a study by Bachtold and Werner (1973), and means and standard deviations for women in the general population were represented by a sten of 5.5 with a standard deviation of 2 for each factor of the 16 PF (IPAT, 1972, p. 15).

To assess between group differences, two t tests were conducted. The first t test was used to compare scores of craftswomen with women artists, and the second t test was used to compare scores of craftswomen with women in general.

Group means were described in terms of bipolar measures of personality characteristics identified by alphabetical symbols with a plus sign indicating a high score, and a minus sign indicating a low score. Plus scores were used to indicate scores above 6.0 and minus scores were used to indicate scores below 5.0.

TABLE 1

Variances and Homogeneity of Variance Between Craftswomen and Women Artists and Women in the General Population

Factor	Craftswomen v_1 (n=38)	Women Artists v_2 (n=132)	Women in Gen. v_3 (n=729)	Craftswomen Women/Artists F_1	Craftswomen Women in Gen. Pop. F_2	Women Artists/ Women in Gen. Pop. F_3
A	2.2	2.9	4.0	.76	.55	.72
B	3.0	3.2	4.0	.94	.75	.80
C	4.4	3.2	4.0	1.38	1.10	.80
E	4.5	3.2	4.0	1.38	1.10	.80
F	4.1	3.6	4.0	1.14	1.02	.90
G	4.5	4.4	4.0	1.02	1.12	1.10
H	3.6	3.6	4.0	1.00	.90	.90
I	2.3	3.6	4.0	.64	.57	.90
L	4.2	4.4	4.0	.95	1.05	1.10
M	2.1	4.4	4.0	.48	.52	1.10
N	2.2	4.8	4.0	.46	.55	1.12
O	4.6	4.0	4.0	1.15	1.15	1.00
Q_1	4.2	3.6	4.0	1.17	1.05	.90
Q_2	2.3	3.2	4.0	.72	.05	.80
Q_3	4.3	4.0	4.0	1.08	1.07	.10
Q_4	4.0	3.6	4.0	1.11	1.00	.90

$p < .01$

Critical value of $F = 1.725$

$F_1 = \frac{v_1}{v_2}$, $F_2 = \frac{v_1}{v_3}$, $F_3 = \frac{v_2}{v_3}$

Results

The results of the t tests comparing craftswomen with women artists and women in the general population are given in Table II. Women in crafts and creative women artists had ($p < .01$) similar personality characteristics on 14 of the 16 PF, thus strongly supporting Hypothesis I, that women in crafts evidenced personality characteristics similar to persons in other creative fields.

Significant differences were found on two of the 16 dimensions. Since 16 separate t tests were conducted, this result could have been a chance occurance. These findings are not conclusive but do suggest that subtle differences may exist between groups within the creative population and that further testing is needed to determine the meaning of these differences.

Craftswomen differed from women artists on Factor I-, tough-mindedness and Factor N-, unpretentiousness. While a commonality of traits was shared by women in crafts and women artists as represented by Figure I, the subtle differences which appear to exist, especially on Factors I and N, may be the result of divergencies in training and philosophical orientation.

A second t test was conducted to compare mean scores on each dimension of women in crafts with women in the general population. The results of this t test are also presented in Table II and Figure I.

Sten scores for craftswomen feel above 6.0 and below 5.0 on several factors, indicating differences from women in general. Significant differences were found on nine of the 16 PF. The results then ($p < .01$) support Hypothesis 2, that women in crafts evidenced personality characteristics that differentiated them from women in the general population.

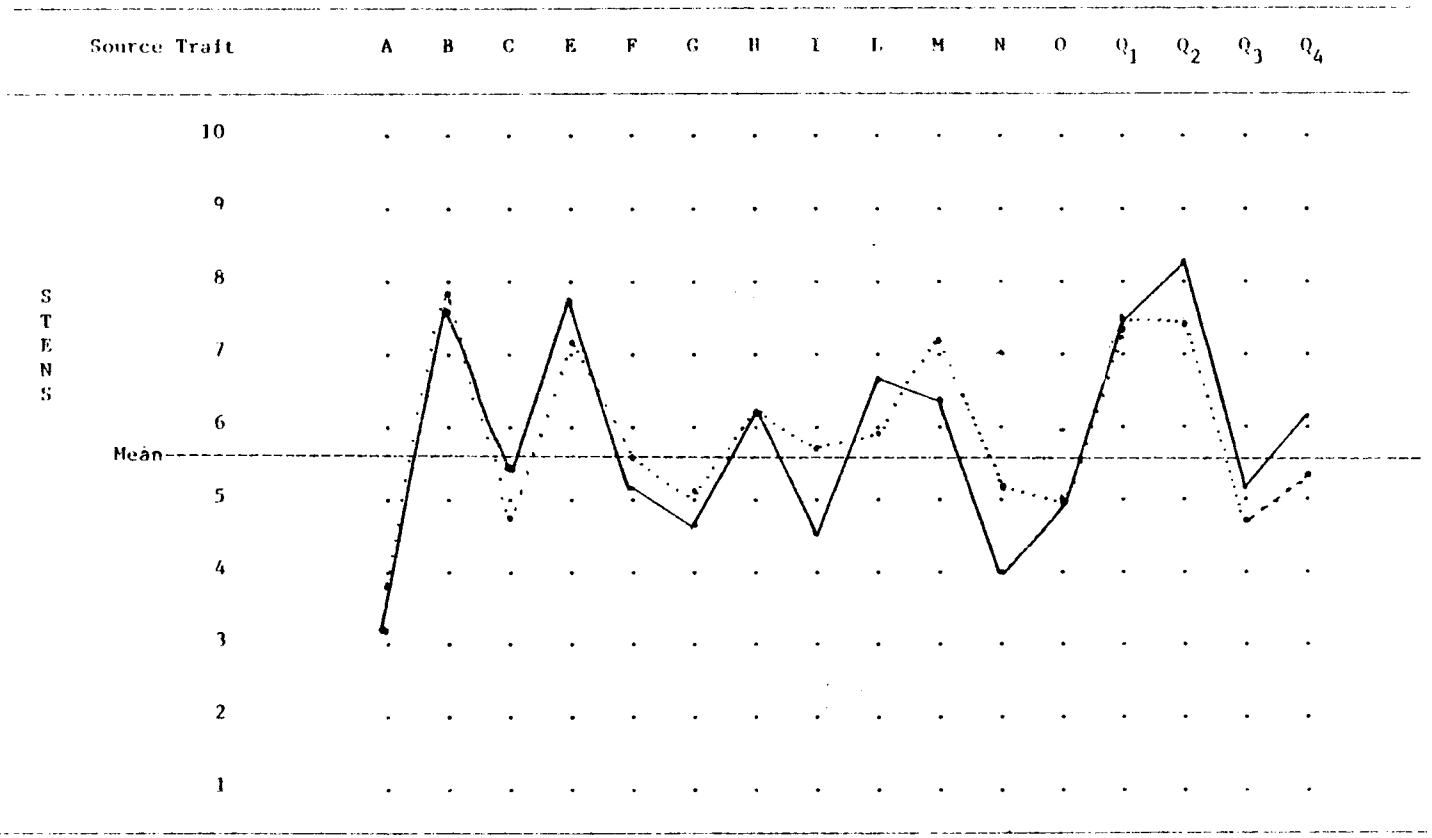
TABLE II

Means and Standard Deviations for Craftswomen and Significance of Differences Between Craftswomen and Women Artists and Women in the General Population

Factor	Craftswomen M (n=38)	SD	Differences from women artists (n=132)	t	Differences from women in Gen. Pop. (n=729)	t
A	3.30	1.50	-.40	-1.30	-2.20	-6.68*
B	7.60	1.70	-.20	- .61	2.10	6.34*
C	5.30	2.10	.50	1.45	-.20	.59
E	7.70	2.10	.60	1.74	2.20	6.59*
F	5.10	2.00	-.40	-1.10	-.40	-1.20
G	4.80	2.10	-.30	-.77	-.70	-2.09
H	6.20	1.90	.00	.00	.70	2.10
I	4.50	1.50	-1.20	-3.60*	-1.00	-3.03*
L	6.80	2.00	.90	2.30	1.30	3.90*
M	6.40	1.50	-.80	-2.20	.90	2.73*
N	4.00	1.50	-1.20	-3.20*	-1.50	-4.56*
O	5.00	2.10	.00	.00	.50	-1.49
Q_1	7.50	2.10	.10	.28	2.00	6.00*
Q_2	8.10	1.50	.60	1.96	2.60	7.89*
Q_3	5.10	2.10	.30	.80	-.40	-1.20
Q_4	6.10	2.00	.80	2.26	-.50	1.80

*$p < .01$

Means for women artists taken from a study by Bachtold & Werner (1973).
Means for women in the general population from IPAT (1972).



	N		A	B	C	E	F	G	H	I	L	M	N	O	Q1	Q2	Q3	Q4
Craftswomen	38	M———	3.3	7.6	5.3	7.7	5.1	4.8	6.2	4.5	6.8	6.4	4.0	5.0	7.5	8.1	5.1	6.1
			1.5	1.7	2.1	2.1	2.0	2.1	1.9	1.5	2.0	1.5	1.5	2.1	2.1	1.5	2.1	2.0
Women Artists	132	M····	3.7	7.8	4.8	7.1	5.5	5.1	6.2	5.7	5.9	7.2	5.2	5.0	7.4	7.5	4.8	5.3
			1.7	1.8	1.8	1.8	1.9	2.1	1.9	1.9	2.1	2.1	2.2	2.0	1.9	1.8	2.0	1.9
Women in Gen.	729	M----	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0

FIGURE 1
PROFILES FOR CRAFTSWOMEN AND WOMEN ARTISTS

Women in crafts were more aloof (A-), intelligent (B+), agressive (E+), practical (I-), mistrusting (L+), imaginative (M+), unpretentious (N-), radical (Q_1), and independent (Q_2) than women in the general population.

Both women in crafts and women artists differed from women in general on all but two of the nine factors listed above. When compared with women in the general population, women in crafts were more detached, reserved and aloof (A-). They showed a preference for liking things and words rather than people, and they prefered to work alone. They avoided compromises and their high E+ score suggested that they were independent-minded, assertive and self-assured. This went along with a high score on Factor Q_2 which indicated that they did not look to other people for agreement or support. They were adventurous, unconventional and self-sufficient.

These women scored as being aesthetically fastidious, sensitively imaginative and more inner-directed (high M+). When compared to women in general, they were more interested in intellectual and aesthetic pursuits, and were more liberal, experimenting and free-thinking. To summarize, women in crafts projected a personality profile which described them in terms that were consistent with the women artists previously studied by Bachtold and Werner (1973) and generally different from women in the general population.

Discussion

The results of this study are consistent with research investigating the personality traits of creative individuals (MacKinnon, 1962b; Cross, Cattell & Butcher, 1967; Bachtold & Werner, 1973). The same traits used by MacKinnon and his associates to describe highly creative architects and scientists appropriately describe, in part, women in crafts. The creatives in MacKinnon's study were characterized by having exhibited aggressiveness,

independence of mind, introversion and high intelligence. These same traits were characteristics of the subjects in this study.

The artists described by Drevdahl and Cattell (1958) also strongly resembled women in crafts. Their group was characterized as being aloof, intelligent, imaginative, aggressive, adventurous, radical, and self-sufficient; again, these traits also characterized women in the present study.

Bachtold and Werner's (1973) study of 132 women artists and 107 women authors, also resulted in a description which was comparable to the findings of this study. Their subjects, when compared to women in general "were more aloof, intelligent, emotional, aggressive, adventurous, imaginative, radical and self-sufficient" (p. 314).

The scientists and artists in Roe's (1946b, 1949, 1951, 1953) research shared many of the same characteristics. In describing these highly creative individuals, Roe used such adjectives as independent, self-sufficient, intelligent, introverted and persistent. Similar adjectives were used to describe the highly creative women mathematicians in Helson's study. Helson found that female mathematicians differed from male mathematicians in terms of sociability, self-acceptance and conformity, but in general they shared many of the same attributes. Her description coincided with the descriptive profile of women in crafts.

The pattern which emerged from many of these studies suggested that the personality traits used to describe creative individuals from a variety of professions were, with slight modification, essentially the same. It was also apparent that much of the work done in the area of adult creativity had utilized a male population. The studies which have looked at the dimension of creativity in adult females have been few in number. This study attempted to look at that dimension within a population of highly select and creative women.

The pattern which emerged for women in crafts was consistent with the findings of other researchers on several personality factors (Cross, Cattell, & Butcher, 1967; Helson, 1967a). Women in crafts shared a commonality of traits used to describe other highly creative individuals, but they also demonstrated characteristics which differentiated them from other groups within the total creative population. Those differences may be the attributable to influences on the training programs and basic philosophy of crafts in the U.S.

The single greatest influence on the crafts movement in this country was the Bauhaus School of Weimar, Germany. The basis of the Bauhaus design philosophy is that form follows function. That principle was the impetus of training programs in crafts and the philosophical orientation for crafts in the United States until just recently. It is quite possible then, that the two factors in the personality profile of women in crafts could have been the result of an aesthetic orientation and training which emphasized less pretentious and more practically oriented objects, or that the choice to have engaged in a crafts media may have been a function of personality needs which found a niche in an artistic field which was less idealistic and more functional. Further study is indicated to determine the meaning of these differences. In conclusion, the results of this study support the findings of other studies that highly creative individuals share similar traits and that they differ from the general population in similar ways.

CHAPTER V

SUMMARY AND CONCLUSIONS

Following a summary, limitations, conclusions, and suggestions for future research are discussed.

Summary

The study of creativity has long been recognized as a viable research area. Much of the work has involved the investigation of the creative person, product, process and the creative environment. With few exceptions, the research in adult creativity has been largely limited to men and "this dimension in women (has) remain(ed) insufficiently elucidated" (Dellas & Gaier, 1970, p. 359).

It was the purpose of this study to investigate creativity in a highly select group of adult females. The study was designed to obtain a personality profile of outstanding and highly creative women in crafts and to determine whether these women differed from other creatives and from women in the general population. It was hypothesized that women in crafts evidenced personality characteristics similar to persons in other creative fields; it was further hypothesized that women in crafts evidenced personality characteristics that differentiated them from women in the general population.

The sample consisted of 69 highly creative and active craftswomen. The women were selected for the study by a panel of three judges with vast experience in crafts. Of the 69 women contacted for the study, 38 women completed and returned the mail questionnaire.

The 16 Personality Factor Questionnaire was used to collect the data. It was selected for this study because it "is an objectively scorable test devised by basic research in psychology to give the most complete coverage of personality possible in a brief time" (IPAT, 1972, p. 5).

Data were analyzed using F and t tests. The results of the t test indicated that women in crafts and women artists had similar personality characteristics on 14 of the 16 dimensions. This result supported Hypothesis I, that women in crafts evidenced personality characteristics similar to persons in other creative fields. Craftswomen differed from women artists on two factors, toughmindedness and unpretentiousness. The results of the second t test indicated that craftswomen differed from women in general on nine of the 16 PF. Women in crafts were more aloof, intelligent, aggressive, practical, mistrusting, imaginative, unpretentious, radical, and independent than women in the general population. These results supported Hypothesis 2, that women in crafts evidenced personality characteristics that differentiated them from women in the general population. Women in crafts share the same traits used to describe other highly creative people, but they also demonstrate differences from other groups within the total creative population.

To summarize, the results of this study are similar to the findings of other researchers. The personality profile projected by creatives in other studies is consistent with the profile projected by women in crafts. The results of this study also suggest certain limitations, implications and directions for future research.

Limitations

There were three limitations of this study which need to be considered. They are: (1) size of the sample, (b) reaction to the 16 PF by respondents and non-respondents, and (c) the panel.

The sample size was small though adequate for research purposes. However, a small sample size is a definite limitation, because it restricts the generalizability of results.

The second limitation was the choice of the instrument used to collect the data. A number of participants included their personal responses to the questionnaire. They varied in intensity and content, but in general their responses suggested that the 16 PF was perceived as impersonal, irrelevant, vague, interesting and intriguing.

The longest response consisted of three written pages and a post card. The post card was a more immediate response and the letter was an after thought. A number of respondents indicated their interest in the study:

> I would be most interested to read the results of this study. Will they be published?

The sense of frustration sensed by a number of respondents in dealing with the 16 PF came through very succinctly in this letter:

> I did answer your questions but not on the paper I was supposed to do so. I thought of high school and the test that I had to take like this one that puts or trys to put a person in a box--then they had to be answered. They were very frustrating and still are and many thoughts come to mind about a question that really has no answer of ABC.

Another respondent said:

> I read through this questionnaire upon receiving it. I waited until the following morning and reread it. My conclusions are the same. I find the questions both irritating and frustrating. I do not believe in the simplistic choices given me. There must be qualification in my answers in almost all of the answers... Should you care to write and ask me specific questions I would be happy to take the time to answer them fully.

Some respondents wrote to say that they did not have time to take part in the study and a few were more direct in expressing their reasons for not participating.

> Please make a questionnaire after you have talked to some creative people. I do not choose to be part of this test when the questions are so vague, so not to the point.

It was understandable that the very characteristics which described these women would also influence and affect their participation in any study. It was possible that many were simply too busy to fill out a questionnaire which required 40 to 50 minutes. One thing remains clear however, that a different approach could have been used to collect the data necessary for this study, one which was more sensitive to the respondents.

A third limitation which caused considerable inconvenience, but which did not affect the findings of the study, involved the collection of population lists from the panel. Only one panel member returned his list within the specified two week period of time. It took the other two panel members three months to return their lists. Since a research schedule was used to facilitate the entire research process, this delay resulted in an overall delay in disseminating research materials and collecting the data.

Conclusions

The following conclusions are based on the results of this study.

1. Although men and women were not compared in this study, the personality profile which emerges for highly creative craftswomen was very similar to the profile of highly creative men in other studies (MacKinnon, 1962a, 1962b, 1970; Cattell, 1963). This suggests then, that creativity cannot be defined in terms of sexual predilection, but rather that creativity is a dimension shared by highly creative members of both sexes.

2. The creative craftswomen in this study are in many ways similar to the highly creative women in other studies (Bachtold & Werner, 1970, 1973; Helson, 1966b, 1967b; Torrance, 1972). All of these women are described as

independent, aggressive, intelligent, imaginative, aloof, and self-sufficient. This personality pattern may be necessary for women who seek professions apart from those usually associated with conventional sex-role orientation (Bardwick, 1971).

3. The results of this study further suggest that creative craftswomen project personality characteristics (aloofness, imaginativeness, self-sufficiency and independence) which seem to imply that they were isolated from people in general. Bachtold and Werner (1973) suggest that this was also a pattern evidenced of creative women artist and authors in their study.

4. Highly creative craftswomen were more introspective as opposed to outgoing, and less dependent on other people for agreement or support. These characteristics would seem essential for creatives involved in artistic production because they would need to be more in touch with their inner self and less group dependent in order to transform their creative ideas into art forms.

5. Since two factors were significantly different for women in crafts when compared to women artists, this may indicate evidence of between group differences among high creatives. Further research is needed to assess these differences.

6. This study has investigated only one aspect of creativity, the creative person. Guilford (1950) has suggested that creativity is a multidimensional variable. Therefore, while the information gained through this research contributed to the general understanding of personality and creativity in highly select groups, there is some indication that to fully understand the dynamics of creativity for any groups requires research into the other aspects of creativity; the creative process, the creative product, and the creative milieu.

7. Lastly, women in this study represented a highly select group, consequently, generalizations from the findings of this study are intended for this and other similar groups and not for craftswomen in general.

Future Research

The results of this study indicated several directions for future research. These directions are:

1. Are there differences between high creatives and low creatives in crafts? Rees and Goldman (1961) found significant differences on several personality factors between high and low creatives in their study. Can these results be generalized to other groups of creatives?

2. Are there differences between highly creative women in crafts and highly creative men in crafts? Helson (1967a) found differences between highly creative male and female mathematicians. Does this pattern exist in other groups of highly creative individuals?

3. Are there cross-cultural differences between highly creative women in crafts in this culture as compared to highly creative women in crafts in other cultures?

4. Can the results of this study be replicated? The replication of this study would test its generalizability of results.

5. There is a need for longitudinal studies which would permit the observation and evaluation of personality factors in women over an extended period of time on a multidimensional level. This is of particular importance because the characteristics associated with highly creative individuals are inconsistent with the roles and models society offers women. Thus, rather than encouraging the development of these characteristics in women, society tends to discourage the development of those traits which are not in keeping with prevailing cultural norms and expectations for women.

While these research questions are only suggestive, they indicate a direction which would provide valuable insights into creativity in general, and more specifically into the area of creativity in women. The information collected in this study on the personality characteristics of craftswomen provides the basis for an ongoing examination of creativity as a multidimensional variable and provides the impetus for further explorations into the nuances of creative experiences.

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APPENDICES

APPENDIX A

BIPOLAR DESCRIPTIONS OF SOURCE TRAITS (FACTORS) A THROUGH Q_4

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR A
U.I.(L&Q)1

Low Score SIZOTHYMIA, A− **(Reserved, Detached, Critical, Aloof, Stiff)**	versus	**High Score** AFFECTOTHYMIA, A+ **(Warmhearted, Outgoing, Easygoing, Participating)**
Critical	vs.	Good Natured, Easygoing
Stands by His Own Ideas	vs.	Ready to Cooperate, Likes to Participate
Cool, Aloof	vs.	Attentive to People
Precise, Objective	vs.	Softhearted, Casual
Distrustful, Skeptical	vs.	Trustful
Rigid	vs.	Adaptable, Careless, "Goes Along"
Cold	vs.	Warmhearted
Prone to Sulk	vs.	Laughs Readily

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR B
U.I.(L&Q)2

Low Score LOW INTELLIGENCE, B− **(Crystallized, Power Measure, Dull)**	versus	**High Score** HIGH INTELLIGENCE, B+ **(Crystallized, Power Measure, Bright)**
Low Mental Capacity	vs.	High General Mental Capacity
Unable to Handle Abstract Problems	vs.	Insightful, Fast-learning, Intellectually Adaptable

The measurement of intelligence has been shown to carry with it, as a factor in the personality realm, *some of the following ratings:* the correlations, however, are quite low.

Apt to Be Less Well Organized	vs.	Inclined to Have More Intellectual Interests
Poorer Judgment	vs.	Showing Better Judgment
Of Lower Morale	vs.	Of Higher Morale
Quitting	vs.	Persevering

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR C
U.I.(L&Q)3

Low Score EMOTIONAL INSTABILITY or EGO WEAKNESS, C− **(Affected by Feelings, Emotionally Less Stable, Easily Upset, Changeable)**	versus	**High Score** HIGHER EGO STRENGTH, C+ **(Emotionally Stable, Mature, Faces Reality, Calm)**
Gets Emotional when Frustrated	vs.	Emotionally Mature
Changeable in Attitudes and Interests	vs.	Stable, Constant in Interests
Easily Perturbed	vs.	Calm
Evasive of Responsibilities, Tending to Give Up	vs.	Does Not Let Emotional Needs Obscure Realities of a Situation, Adjusts to Facts
Worrying	vs.	Unruffled
Gets into Fights and Problem Situations	vs.	Shows Restraint in Avoiding Difficulties

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR D
U.I.(L&Q)4

Low Score PHLEGMATIC TEMPERAMENT, D− **(Undemonstrative, Deliberate, Inactive, Stodgy)**	versus	**High Score** EXCITABILITY, D+ **(Excitable, Impatient, Demanding, Overactive, Unrestrained)**
Stoical	vs.	Demanding, Impatient
Complacent	vs.	Attention-getting, Showing Off
Deliberate	vs.	Excitable, Overactive
Not Easily Jealous	vs.	Prone to Jealousy
Self-effacing	vs.	Self-assertive, Egotistical
Constant	vs.	Distractible
Not Restless	vs.	Shows Many Nervous Symptoms

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR E
U.I.(L&Q)5

Low Score SUBMISSIVENESS, E− **(Obedient, Mild, Easily Led, Docile, Accommodating)**	versus	**High Score** DOMINANCE OR ASCENDANCE, E+ **(Assertive, Aggressive, Competitive, Stubborn)**
Submissive	vs.	Assertive
Dependent	vs.	Independent-minded
Considerate, Diplomatic	vs.	Stern, Hostile
Expressive	vs.	Solemn
Conventional, Conforming	vs.	Unconventional, Rebellious
Easily Upset by Authority	vs.	Headstrong
Humble	vs.	Admiration Demanding

CHARACTERISTIC EXPRESSSIONS OF SOURCE TRAIT OR

FACTOR F
U.I.(L&Q)6

Low Score DESURGENCY, F− **(Sober, Taciturn, Serious)**	versus	**High Score** SURGENCY, F+ **(Enthusiastic, Heedless, Happy-go-lucky)**
Silent, Introspective	vs.	Talkative
Full of Cares	vs.	Cheerful
Concerned, Reflective	vs.	Happy-go-lucky
Incommunicative, Sticks to Inner Values	vs.	Frank, Expressive, Reflects the Group
Slow, Cautious	vs.	Quick and Alert

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR G
U.I.(L&Q)7

Low Score LOW SUPEREGO STRENGTH or LACK OF ACCEPTANCE OF GROUP MORAL STANDARDS, G− **(Disregards Rules, Expedient)**	versus	**High Score** SUPEREGO STRENGTH or CHARACTER, G+ **(Conscientious, Persistent, Moralistic, Staid)**
Quitting, Fickle	vs.	Persevering, Determined
Frivolous	vs.	Responsible
Self-indulgent	vs.	Emotionally Disciplined
Slack, Indolent	vs.	Consistently Ordered
Undependable	vs.	Conscientious, Dominated by Sense of Duty
Disregards Obligations to People	vs.	Concerned about Moral Standards and Rules

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR H
U.I.(L&Q)8

Low Score THRECTIA, H **(Shy, Timid, Restrained, Threat-sensitive)**	versus	**High Score** PARMIA, H+ **(Adventurous, "Thick-skinned," Socially Bold)**
Shy, Withdrawn	vs.	Adventurous, Likes Meeting People
Retiring in Face of Opposite Sex	vs.	Active, Overt Interest in Opposite Sex
Emotionally Cautious	vs.	Responsive, Genial
Apt to be Embittered	vs..	Friendly
Restrained, Rule-bound	vs.	Impulsive
Restricted Interests	vs.	Emotional and Artistic Interests
Careful, Considerate, Quick to See Dangers	vs.	Carefree, Does Not See Danger Signals

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR I
U.I.(L&Q)9

Low Score HARRIA, I **(Tough-minded, Rejects Illusions)**	versus	**High Score** PREMSIA, I+ **(Tender-minded, Sensitive, Dependent, Overprotected)**
Unsentimental, Expects Little	vs.	Fidgety, Expecting Affection and Attention
Self-reliant, Taking Responsibility	vs.	Clinging, Insecure, Seeking Help and Sympathy
Hard (to point of cynicism)	vs.	Kindly, Gentle, Indulgent, to Self and Others
Few Artistic Responses (but not lacking in taste)	vs.	Artistically Fastidious, Affected, Theatrical
Unaffected by "Fancies"	vs.	Imaginative in Inner Life and in Conversation
Acts on Practical, Logical Evidence	vs.	Acts on Sensitive Intuition
Keeps to the Point	vs.	Attention-seeking, Flighty
Does not Dwell on Physical Disabilities	vs.	Hypochondriacal, Anxious about Self

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR J
U.I.(L&Q)10

Low Score ZEPPIA, J- **(Zestful, Liking Group Action)**	versus	**High Score** , COASTHENIA, J+ **(Circumspect Individualism, Reflective, Internally Restrained)**
Likes to Go with the Group	vs.	Acts Individualistically
Likes Attention	vs.	Guarded, Wrapped Up in Self
Sinks Personality into Group Enterprise	vs.	Fastidiously Obstructive
Vigorous	vs.	Neurasthenically Fatigued
Accepts Common Standards	vs.	Evaluates Coldly

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR L
U.I.(L&Q)12

Low Score ALAXIA, L (Trusting, Accepting Conditions)	versus	High Score PROTENSION, L+ (Suspecting, Jealous)
Accepts Personal Unimportance	vs.	Jealous
Pliant to Changes	vs.	Dogmatic
Unsuspecting of Hostility	vs.	Suspicious of Interference
Ready to Forget Difficulties	vs.	Dwelling upon Frustrations
Understanding and Permissive, Tolerant	vs.	Tyrannical
Lax over Correcting People	vs.	Demands People Accept Responsibility over Errors
Conciliatory	vs.	Irritable

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR M
U.I.(L&Q)13

Low Score PRAXERNIA, M− (Practical, Has "Down to Earth" Concerns)	versus	High Score AUTIA, M+ (Imaginative, Bohemian, Absent-minded)
Conventional, Alert to Practical Needs	vs.	Unconventional, Absorbed in Ideas
Concerned with Immediate Interests and Issues	vs.	Interested in Art, Theory, Basic Beliefs
Prosaic, Avoids Anything Far-fetched	vs.	Imaginatively Enthralled by Inner Creations
Guided by Objective Realities, Dependable in Practical Judgment	vs.	Fanciful, Easily Seduced from Practical Judgment
Earnest, Concerned or Worried, but Steady	vs.	Generally Enthused, but Occasional Hysterical Swings of "Giving Up"

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR N
U.I.(L&Q)14

Low Score NAÏVETE, N− (Forthright, Unpretentious)	versus	High Score SHREWDNESS, N+ (Astute, Worldly)
Genuine, but Socially Clumsy	vs.	Polished, Socially Aware
Has Vague and Injudicious Mind	vs.	Has Exact, Calculating Mind
Gregarious, Gets Warmly Emotionally Involved	vs.	Emotionally Detached and Disciplined
Spontaneous, Natural	vs.	Artful
Has Simple Tastes	vs.	Esthetically Fastidious
Lacking Self-insight	vs.	Insightful Regarding Self
Unskilled in Analyzing Motives	vs.	Insightful Regarding Others
Content with What Comes	vs.	Ambitious, Possibly Insecure
Has Blind Trust in Human Nature	vs.	Smart, "Cuts Corners"

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR O
U.I.(L&Q)15

Low Score		High Score
UNTROUBLED ADEQUACY, O− (Self-assured, Placid, Secure, Complacent)	versus	GUILT PRONENESS, O+ (Apprehensive, Self-reproaching, Insecure, Worrying, Troubled)
Self-confident	vs.	Worrying, Anxious
Cheerful, Resilient	vs.	Depressed, Cries Easily
Impenitent, Placid	vs.	Easily Touched, Overcome by Moods
Expedient, Insensitive to People's Approval or Disapproval	vs.	Strong Sense of Obligation, Sensitive to People's Approval and Disapproval
Does Not Care	vs.	Scrupulous, Fussy
Rudely Vigorous	vs.	Hypochondriacal and Inadequate
No Fears	vs.	Phobic Symptoms
Given to Simple Action	vs.	Lonely, Brooding

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR Q_1
U.I.(Q)16

Low Score		High Score
CONSERVATISM OF TEMPERAMENT, Q_1− (Conservative, Respecting Established Ideas, Tolerant of Traditional Difficulties)	versus	RADICALISM, Q_1+ (Experimenting, Liberal, Analytical, Free-thinking)

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR Q_2
U.I.(Q)17

Low Score		High Score
GROUP DEPENDENCY, Q_2− (Sociably Group Dependent, A "Joiner" and Sound Follower)	versus	SELF-SUFFICIENCY, Q_2+ (Self-sufficient, Resourceful, Prefers Own Decisions)

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR Q_3
U.I.(Q)18

Low Score		High Score
LOW SELF-SENTIMENT INTEGRATION, Q_3− (Uncontrolled, Lax, Follows Own Urges, Careless of Social Rules)	versus	HIGH STRENGTH OF SELF-SENTIMENT, Q_3+ (Controlled, Exacting Will Power, Socially Precise, Compulsive, Following Self-image)

CHARACTERISTIC EXPRESSIONS OF SOURCE TRAIT OR

FACTOR Q_4
U.I.(Q)19

Low Score		High Score
LOW ERGIC TENSION, Q_4− (Relaxed, Tranquil, Torpid, Unfrustrated, Composed)	versus	HIGH ERGIC TENSION, Q_4+ (Tense, Frustrated, Driven, Overwrought, Fretful)

APPENDIX B

INFORMATION QUESTIONNAIRE

AGE:

EDUCATIONAL BACKGROUND:

PRESENT ARTISTIC MEDIUM:

WORK IN OTHER ARTISTIC MEDIA:

AWARDS, GRANTS AND SPECIAL ACHIEVEMENTS:

APPENDIX C

I am working on a study at the University of Tennessee, Knoxville. We are interested in obtaining information about outstanding women in Crafts. We want to determine some of the characteristics of this highly creative group. In addition, we want to compare the characteristics of eminent craftswomen with other women artists and women in the general population. You have been selected for this study by a panel of judges who were asked to review a list of women who have made outstanding contributions in fiber, metal, wood and clay. It will take about 40 minutes for you to complete the questionnaire if you should desire to do so. There are no right or wrong answers and all information will be strictly confidential. Your name will not appear anywhere on the information sheets. The information you give us will be very helpful for research purposes.

Should you wish to participate in this study we are asking that you return the questionnaire by . Thank you for your help and cooperation

Sincerely,

Project Director

Department of Child and Family Studies
College of Home Economics
The University of Tennessee, Knoxville
1218 White Avenue
Telephone (615) 974-5316

Carol Freid
Child and Family Studies
Project Director

Judith L. Kuipers, Head
Child and Family Studies
Project Co-Director

APPENDIX D

INFORMED CONSENT LETTER

We are interested in obtaining information about outstanding women in crafts who work in fiber, clay, metal, and wood. We want to determine some of the characterisitcs of this highly creative group. In addition, we want to compare the characteristics of eminent crafts-women with other women artists and women in the general population.

It would be greatly appreciated if you would complete the attached questionnaire. You have a right to stop filling out the questionnaire at any time without prejudice to you.

You, as a participant in this study, are guaranteed complete confidentiality. The fact that you have participated in the study will be held in strictest confidence. Your name will never appear in reference to this study; only summary data will be used.

Should you have any questions or wish any information concerning this study you may contact me by mail.

Director's Name
Department of Child and Family Studies
College of Home Economics
The University of Tennessee, Knoxville
1218 White Avenue
Telephone (615) 974-5316

I have been informed of the procedure to be followed for this research project and have been guaranteed my rights to confidentiality and my right to discontinue filling out the questionnaire at any time without prejudice. I consent to participate in this study.

Date

Signature

APPENDIX E

FORM A
1967-68 EDITION R

16 PF

WHAT TO DO: Inside this booklet are some questions to see what interests you have and how you feel about things. There are no "right" or "wrong" answers because people have the right to their own views. All you have to do is answer what is true for *you*.

If a separate answer sheet has *not* been given to you, turn this booklet over and tear off the answer sheet on the back page. Write your name and the other information asked for on the answer sheet.

First, read the four EXAMPLES below and mark your answers *on the answer sheet* where it says *EXAMPLES*. Fill in the box completely:

EXAMPLES:

1. I like to watch team games.
   a. yes, b. occasionally, c. no.

2. I prefer people who:
   a. are reserved,
   b. (are) in between,
   c. make friends quickly.

3. Money cannot bring happiness.
   a. yes (true),
   b. in between,
   c. no (false).

4. Adult is to child as cat is to:
   a. kitten, b. dog, c. baby.

In the last example there *is* a right answer—kitten. But there are very few such reasoning items.

Ask *now* if something isn't clear.

When the examiner tells you, start with number 1 and answer the questions. Keep these four things in mind:

1. Give only answers that are true *for you*. It is best to say what you really think.

2. Don't spend too much time thinking over each question. **Give the first, natural answer as it comes to you.** Of course, the questions are too short to give you *all* the information you might like, but give the best answer you can under the circumstances.

3. Answer *every* question one way or the other. Don't skip any.

4. You should mark the *a* or *c* answer *most* of the time. Mark the middle *b* answer *only* when you feel you have to, because neither *a* nor *c* seems to be right for you.

DO NOT TURN PAGE UNTIL TOLD TO DO SO

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Name: _____

Comments: _____

16 PF TEST PROFILE

FACTOR	Raw Score: Form A/C/E	Raw Score: Form B/D	Raw Score: Total	Standard Score	LOW SCORE DESCRIPTION	STANDARD TEN SCORE (STEN) (Average) 1 2 3 4 5 6 7 8 9 10	HIGH SCORE DESCRIPTION
A					**RESERVED,** DETACHED, CRITICAL, ALOOF, STIFF (Sizothymia)	A	**OUTGOING,** WARMHEARTED, EASY GOING, PARTICIPATING (Affectothymia)
B					**LESS INTELLIGENT,** CONCRETE-THINKING (Lower scholastic mental capacity)	B	**MORE INTELLIGENT,** ABSTRACT THINKING, BRIGHT (Higher scholastic mental capacity)
C					**AFFECTED BY FEELINGS,** EMOTIONALLY LESS STABLE, EASILY UPSET CHANGEABLE (Lower ego strength)	C	**EMOTIONALLY STABLE,** MATURE, FACES REALITY, CALM (Higher ego strength)
E					**HUMBLE,** MILD, EASILY LED, DOCILE, ACCOMMODATING (Submissiveness)	E	**ASSERTIVE,** AGGRESSIVE, STUBBORN, COMPETITIVE (Dominance)
F					**SOBER,** TACITURN, SERIOUS (Desurgency)	F	**HAPPY-GO-LUCKY,** ENTHUSIASTIC (Surgency)
G					**EXPEDIENT,** DISREGARDS RULES (Weaker superego strength)	G	**CONSCIENTIOUS,** PERSISTENT, MORALISTIC, STAID (Stronger superego strength)
H					**SHY,** TIMID, THREAT-SENSITIVE (Threctia)	H	**VENTURESOME,** UNINHIBITED, SOCIALLY BOLD (Parmia)
I					**TOUGH-MINDED,** SELF-RELIANT, REALISTIC (Harria)	I	**TENDER-MINDED,** SENSITIVE, CLINGING, OVERPROTECTED (Premsia)
L					**TRUSTING,** ACCEPTING CONDITIONS (Alaxia)	L	**SUSPICIOUS,** HARD TO FOOL (Protension)
M					**PRACTICAL,** "DOWN-TO-EARTH" CONCERNS (Praxernia)	M	**IMAGINATIVE,** BOHEMIAN, ABSENT-MINDED (Autia)
N					**FORTHRIGHT,** UNPRETENTIOUS, GENUINE BUT SOCIALLY CLUMSY (Artlessness)	N	**ASTUTE,** POLISHED, SOCIALLY AWARE (Shrewdness)
O					**SELF-ASSURED,** PLACID, SECURE, COMPLACENT, SERENE (Untroubled adequacy)	O	**APPREHENSIVE,** SELF-REPROACHING, INSECURE, WORRYING, TROUBLED (Guilt proneness)
Q_1					**CONSERVATIVE,** RESPECTING TRADITIONAL IDEAS (Conservatism of temperament)	Q_1	**EXPERIMENTING,** LIBERAL, FREE-THINKING (Radicalism)
Q_2					**GROUP-DEPENDENT,** A "JOINER" AND SOUND FOLLOWER (Group adherence)	Q_2	**SELF-SUFFICIENT,** RESOURCEFUL, PREFERS OWN DECISIONS (Self-sufficiency)
Q_3					**UNDISCIPLINED SELF-CONFLICT,** LAX, FOLLOWS OWN URGES, CARELESS OF SOCIAL RULES (Low integration)	Q_3	**CONTROLLED,** EXACTING WILL POWER, SOCIALLY PRECISE, COMPULSIVE (High strength of self-sentiment)
Q_4					**RELAXED,** TRANQUIL, UNFRUSTRATED, COMPOSED (Low ergic tension)	Q_4	**TENSE,** FRUSTRATED, DRIVEN, OVERWROUGHT (High ergic tension)

A sten of	1	2	3	4	5	6	7	8	9	10	is obtained
by about	2.3%	4.4%	9.2%	15.0%	19.1%	19.1%	15.0%	9.2%	4.4%	2.3%	of adults

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VITA

Carolann Gadawski Freid was born in Hamtramck, Michigan. She attended public school in Detroit, Michigan and graduated from Redford High School. She holds a Bachelor of Arts degree from Wayne State University, A Master of Science from Hunter College, and has done post graduate work at New York University, Earlham College and Goddard College.

Her work experience has encompassed several disciplines. She taught for two years in the New York Public Schools, one year in the Human Development Laboratory at the University of Tennessee, Knoxville, and has been the director of two pre-school programs. In addition she has taught courses in the Child and Family Studies Department, and the Non-Credit Division of the University of Tennessee. She has also served as a consultant on several projects to the Head Start Office at the University. She has worked in three museums including the Detroit Institute of Art and for the Archives of American Art. In addition, she has had her work accepted for exhibition in many shows and has had several one woman exhibitions.

She is a member of the American Academy of Sciences, the New York Academy of Sciences, the Monumental Brass Society, the American Crafts Association, Association of Women in Philosophy, Association of Women in Art, and numerous other professional organizations.

Her doctoral work at the University of Tennessee in the interdisciplinary program of the College of Home Economics has involved work and study in Human Development, Anthropology, Art and Crafts.