

7-1973

The Effects of Developmental Groups on Personality Factors

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Sensing,

Larry W.

1973

THE EFFECTS OF DEVELOPMENTAL GROUPS
ON PERSONALITY FACTORS

A Thesis

Presented to

the Faculty of the Department of Psychology
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by

Larry W. Sensing

July 1973

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THE EFFECTS OF DEVELOPMENTAL GROUPS
ON PERSONALITY FACTORS

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ACKNOWLEDGEMENTS

I would like to acknowledge the assistance I have received in this endeavor both from many members of the faculty of the Psychology Department and my entire family. Gratitude is also expressed to the chairman of the Psychology Department, Dr. Harry Robe, for the use of departmental facilities during the process of conducting the study. The help provided by Dr. David Shiek, committee chairman, was far beyond the call of duty. Dr. Carl Martray and Dr. Clinton Layne, members of my thesis committee, also provided invaluable assistance. The time given by my wife, Marty, and the encouragement and understanding provided by both she and my daughter, Sabrina, were major forces in the completion of the study.

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CHAPTER I

INTRODUCTION

Because of the attempt by our culture to deal with isolation and alienation in contemporary life, the small group process has become a significant force in many parts of American society. It has been known under many names: encounter group, T-group, sensitivity group, and developmental group. Since this phenomenon generally grew outside of the "establishment," those scholars and behavioral scientists who have in the past been charged with the evaluation of such practices only recently have begun to explore its effects. Perhaps because the group process was not first explored intensively in an academic setting, colleges have been among the last institutions to explore effects of the group experience (Rogers 1972).

Little research has attempted to investigate the feasibility and effects of conducting such groups on a university campus. One such study was attempted by Enfield (1972). In order to further explore the implications of such processes, this present study was designed to replicate the portion of Enfield's project that studied the quantitative effects of the group experience on personality structure. Such research is vitally needed to provide the bases for

rationally evaluating the effects of the small group process on personality variables.

CHAPTER II

REVIEW OF RELEVANT LITERATURE

Small group processes seem to have as general goals for participants such things as self-awareness, releasing of human potential, personal growth, openness, and group effectiveness (Gibb 1971). These elements, it would seem, could be major facets of personality traits which make up the individual. If indeed the group process has effects on these elements of the personality it possibly could be used as a major force in the prevention of emotional problems.

Results gathered on the effectiveness of groups similar to those studied by Enfield (1972) reveal varied findings. Driver (1951) found that small group discussion carried on in a permissive atmosphere was an excellent learning medium for college students. Following a personal growth group experience, Foulds (1970) discovered the participants changed significantly in feelings and attitudes of personal freedom and internal direction. He also detected greater flexibility in the application of values and reduced compulsivity and dogmatism on the part of the subjects. Solomon, Berzon, and Davies (1970) reported results which indicated subjects became more open, sensitive to others, self-accepting, and self-motivating as a result of self-directed groups.

Gassener, Gold, and Snadowsky (1964) observed that discrepancies between self-concept and both the ideal self and self image were apparently reduced after participation in a small group experience. These findings were seen as improvements in general emotional stability. Harrison (1966), Burke and Bennis (1961), and Miles (1960) also reported results that were generally regarded as movement toward better emotional stability and adjustment.

Increases in self-esteem and self-concept, along with greater self-actualizing tendencies, were discovered by Bebout and Gordon (1972) as a result of small discussion groups. They also found that alienation was reduced, interpersonal relations became more empathic and improved, and people became less lonely and felt close to each other. Bebout and Gordon (1972) concluded that encounter groups, "...when designed to provide a supportive group-centered climate for personal growth do produce significant positive changes [p. 117]."

J. R. Gibb (1971), after probably the most extensive single review of research on this subject, concluded:

"While the evidence for the therapeutic and behavior-change effects of human-relations training is certainly controversial and open to legitimate multiple interpretations, it seems clear to the reviewer that changes do occur in sensitivity, feeling management, directionality of motivation, attitudes toward self, attitudes toward others, and interdependence. Because these effects are closely related to hoped-for therapeutic outcomes, the evidence is strong that intensive group-training experiences have therapeutic effects. It is yet to be demonstrated whether the magnitude of the effects is sufficient to justify an

increased use of extensive group training, or whether the effects are therapeutically significant in comparison with the effects of more conventional methods of therapy [p. 855]."

Throughout the current literature almost every finding is qualified by a concluding statement indicating a desperate need for more research on almost every aspect of the effects of small groups.

If the small group process is helpful in the prevention of emotional problems on many levels, it would seem particularly suitable to the college campus, since large groups of individuals who have many common values and concerns are in close proximity.

Research has shown that the transition from high school to college is related to great emotional strain (Farnsworth 1959). It has been further noted that at least 10% of all college students are in need of psychological help (Angell, 1933; Cobb, 1922; Farnsworth, 1959). Farnsworth (1959) pointed out that it is probable that more than one half of the college dropouts leave because of psycho-social difficulties and that American colleges lose half their students in the four years after matriculation. This cost in human well-being and waste of brainpower suggests that our institutions of higher education are not very conducive to the greatest development of the students.

Preventive measures are particularly effective at crucial states in life when stresses on the person may be accentuated and the vulnerability to breakdown may be high.

The college years, when most individuals are experiencing the stress of late adolescence and young adulthood, certainly must be considered a period of vulnerability (Kysar 1966). Kysar (1966) indicates that the college youth's personality, which may still be only partially formed as he enters college, "...will crystallize in ways which promote future health and productivity, or in ways which are maladaptive and set him on the road to probably trouble [p. 30]."

According to Farnsworth (1959) college students are highly susceptible to factors promoting mental health since they are confronted with so many possibilities and choices, whose wise resolution is of the utmost importance to them.

Kysar (1966) further pointed out that our society can never provide enough psychiatric personnel and facilities to give adequate therapy if we wait until impairment is severe. If we wait until the personality malfunction has reached the point where the patient requires many hours of professional time in an office or hospital then we will have to devote greater amounts of time and money to him.

The colleges have not been totally negligent in providing mental health services to students, but most of these services have been on an "after the fact" basis such as in counseling centers, psychiatric clinics, and psychological clinics. Other efforts have been attempted such as Driver's (1951) program of small group techniques to teach interpersonal relationships as a part of an Introductory Education course.

Enfield (1972), while studying the feasibility and effectiveness of developmental groups on a college campus, demonstrated the need for preventive mental health measures and the potential of group techniques. That study noted that if students are to be helped in large numbers with today's allocation of resources in higher education, ways must be found to do it that involve more reasonable time commitments on the part of students. Enfield's study investigated whether a minimal time program could be worthwhile.

The results of the Enfield study were inconclusive. The effects of group participation appeared to depend on such issues as how the particular group structured itself, the personalities of the group members, and the amount of openness obtained. The results Enfield obtained on the Sixteen Personality Factor Questionnaire indicated that there were significant differences at the .05 level between the controls and experimentals on only two of the personality factors measured. The first difference was on Factor B. This difference indicated that the control group was higher on "intelligence" than the experimental group after the conclusion of the group sessions. The other significant difference found in the study was on Factor Q₂ which indicated that the experimental group showed more self-sufficiency rather than group adherence after the sessions had concluded. The controls (non-participants) rated themselves as stronger than the experimental group, more emotionally stable, and less homesick. Enfield hypothesized that these differences could

be due to: (1) the experimental group's focus on problems and negative feelings and/or (2) the greater willingness of the experimental group to express such feelings. The qualitative data did lend some support to the idea that students can be helped with emotional development by participation in small groups with non-professionals in a very short time.

Carl Rogers (1968) stated, "Man's greatest problem, at this point in our swiftly changing technological progress, concerns our ability to assimilate change [p. 265]." Rogers (1968) also feels that the intensive group experience is perhaps the most significant social invention of this century and may be able to help with these rapid changes.

The need for data on the effects of small group experience on personality traits was evident. This present study was conceived in that spirit, combined with the concern for the increase in the need for preventive measures in every area of the mental health field, particularly on the college campus.

CHAPTER III

METHOD

Operational Procedures

The procedures followed were designed to study personality changes in college students after participation in developmental groups. Many of the procedures were modeled after a portion of a study by Enfield (1972), and the modifications were a result of recommendations made by Enfield or limitations of the present setting.

Similar to Enfield's (1972) study, fourth semester graduate students in clinical psychology were used as group leaders because of their availability and basic knowledge of human behavior. Two of the four group leaders were male and two were female. They were each responsible for only one group. The leaders were briefed by a faculty member with knowledge in the area of developmental group processes before the sessions began. These procedures approximated those used by Enfield (1972) with the exception that she used co-leaders who had no special group training and some of the co-leaders participated in more than one group during the project.

Subjects

In order to solicit subjects (Ss) the four group leaders presented a list of fifteen points concerning the project

(See Appendix A) to introductory psychology classes meeting during the Spring of 1973. Following each presentation, a list with the available times for group meetings was circulated in the class for the students to register. The Ss were then randomly selected from the 121 college freshmen volunteers obtained from the introductory psychology classes. Enfield (1972) solicited from various sources across campus and used only first semester freshmen.

The 121 volunteers were randomly assigned numbers which were used to assign them to the experimental or control groups. Forty Ss were assigned to the experimental group and 40 were assigned to the control group by means of a random number table (Downie and Heath, 1959). Five males and five females were placed in each experimental group. According to Hinckly (1953) and Enfield (1972) groups of approximately eight are preferable. Therefore, 10 Ss were selected because of the expected dropout rate. Due to dropouts from the experimental groups, the total number of Ss was reduced to 62. Of the 31 Ss in both the experimental and control groups, 18 were females and 13 were males. The volunteers who took the pre-test but were not selected for either the experimental or control groups were informed that they would be assigned to a "stand-by" group that would receive class credit for taking the tests and be eligible for participation in future groups. Both Enfield's (1972) experimental and control groups were composed of 18 females and 12 males.

Pre-Test Measure

The Sixteen Personality Factor Questionnaire, Form A, (Cattell, 1954) was used to measure change on personality variables as a result of participation in the small group process. Enfield (1972) used this measure and noted that some problems existed in the use of such an instrument. She also pointed out that such tests are designed to measure relatively stable verbal attitudes which may vary in their relationship to observations on a behavioral level. Furthermore, Enfield (1972) noted that changes resulting from counseling and group experiences may be related to less stable personality variables. The Sixteen Personality Factor Questionnaire was chosen by Enfield because, "...it is as good as most in detecting change and has the additional asset of being based upon dimensions derived from factor analysis [p. 19]." In an effort to replicate Enfield's work, the Sixteen Personality Factor Questionnaire, Form A, was used in this study in spite of the difficulties mentioned by Enfield. The four "second stratum source traits" of the Sixteen Personality Factor Questionnaire were used in addition to the 16 "primary source traits" to further explore the efforts of the group experience. Enfield used only the 16 "primary source traits." A description of the 20 factors on the Sixteen Personality Factor Questionnaire as given by Cattell (1970) is contained in Appendix B.

All of the volunteers were administered the Sixteen Personality Factor Questionnaire one week prior to the beginning

of the group sessions. Testing was conducted according to the time the volunteers had indicated they could be available for the small group sessions. Three other tests, the Tennessee Self-Concept Scale, the Eysenck Personality Inventory, and the Repression-Sensitization Scale were also administered to each volunteer during the testing session in conjunction with two other studies that were conducted using the same pool of Ss. The four tests were administered in a counter-balanced order.

Group Process

The group process was unstructured and was conducted along developmental lines. The following definition of "developmental groups" was adopted from Madison (1968):

"...to increase self-understanding and personal development in the normal individuals through regular participation in a small group wherein free expression of feelings and attitudes are encouraged and the person's responses to the other group members is used as a means of identifying his own characteristics and influencing them in ways that promote individual development [p. 21]."

The groups were kept on a positive plane with as little "depth" and historical emphasis as possible. While the leaders functioned as group members, their primary responsibility was that of group leader. The task was to keep the discussion on a "here-and-now" orientation, but not to the exclusion of important experiences in a member's life outside the group. All sessions were conducted in the same room of the Psychological Clinic and were observed by faculty supervisors through a one way window. The groups were informed of the method of supervision before the first session began. The sessions were conducted twice a week over a five week period for a total of ten sessions. In Enfield's (1972) study the group met on a weekly basis, but because of holidays there were some weeks when her groups did not meet.

Post-Test Measure

The post-testing was conducted with both the experimental and control groups one week after the final group session. The procedures utilized to obtain this measure were identical

to those followed in the pre-test situation. The Sixteen Personality Factor Questionnaire, Form A, and the three other instruments which were being utilized in the other concurrent studies were administered in a counterbalanced order.

The raw scores for each factor were obtained through hand-scoring procedures. The raw scores were converted to standard scores using the normative data presented in the Manual for Forms A and B Sixteen Personality Factor Questionnaire (Cattell 1954).

Data Analysis

In an effort to analyze the effects of the developmental group process on personality factors, twenty 2 x 2 factorial analyses of variance with repeated measures on one variable were used. The procedures outlined by Winer (1962) were followed. In those cases where the obtained F ratios on the interaction effect equaled or exceeded the $p < .05$ level of significance, Duncan's Multiple Range Test was used to determine where the significant differences were occurring. In such cases, the method outlined by Dayton (1970) was followed.

Statement of Hypotheses

The null hypotheses associated with each of the twenty 2 x 2 factorial analyses of variance with repeated measures on one variable were:

- (1) No significant difference will be found between the experimental and control groups.

- (2) No significant difference will be found between the pre-test and post-test measures.
- (3) No significant difference will be found between the interaction of the experimental and control groups across the pre-test and post-test measures.

CHAPTER IV

RESULTS

The results obtained from the statistical tests performed on the data revealed that none of the null hypotheses associated with the experimental effect could be rejected at or beyond the .05 level of confidence. Significant differences were obtained in relation to two of the hypotheses related to pre-test/post-test effects. A summary of the results associated with the various hypotheses are presented in Table 1.

Primary Findings

None of the null hypotheses associated with differences between the experimental and control groups were rejected at the $p \leq .05$ level of confidence. Therefore, it was assumed that the random placement of subjects in those groups yielded generally equivalent groups and that any other significant differences obtained were not the result of such bias.

One null hypothesis associated with the differences between pre-test and post-test measures was rejected at the .05 level of confidence. This significant difference occurred on Factor N. In this case the experimental and control groups scored more in the direction of naivete, forthrightness, and

TABLE 1

Analyses of Variance of Results for the
Twenty 16 PF Variables

Sources of variance and F values			
16 PF Factor	Experimental /control (df = 1, 60)	Pre-test/ post-test (df = 1, 62)	Interaction (df = 1, 60)
A	0.583	1.510	0.045
B	0.489	2.411	0.192
C	1.966	0.840	0.428
E	0.105	2.256	0.775
F	0.184	0.774	0.297
G	1.994	0.433	0.883
H	0.837	0.432	1.067
I	0.079	3.713**	0.002
L	0.100	0.024	0.065
M	0.153	0.288	0.104
N	0.711	9.010***	0.174
O	0.048	0.002	0.002
Q ₁	0.451	0.031	1.537*
Q ₂	0.003	2.123	0.023
Q ₃	0.559	1.609	0.213
Q ₄	0.160	1.265	0.072
Q _I	0.925	0.007	0.079
Q _{II}	0.633	0.794	0.223
Q _{III}	0.022	0.184	0.000
Q _{IV}	0.320	0.042	0.444

*p < .250.

**p < .010.

***p < .001.

unpretentiousness versus shrewdness, assertiveness, and worldliness on the post-test measure. Since this change occurred in both the experimental and control groups across time it can only be attributed to uncontrolled variables that were not the focus in this study.

None of the null hypotheses associated with the interaction effects were rejected at the $p < .05$ level of confidence. These hypotheses were the central focus of the study in that they allowed the partitioning of the effect of the developmental group process on the measures under study.

Post Hoc Findings

Although significant changes at the .05 level of confidence were not reflected on any of the variables associated with the effects of the developmental groups process, a trend was present at the .25 level of confidence in the analysis of variance procedure associated with Factor Q_1 . Duncan's Multiple Range Test was calculated to determine where the significance had occurred. The rank ordered mean values for the interaction effect on Factor Q_1 are presented in Table 2 and the difference between the means are provided in Table 3. The r_p values obtained via Duncan's procedure at $p < .10$ level of confidence were .1764, .1865, and .1929 for two, three, and four contrasts.

The results indicated that the experimental group post-test mean was significantly different than both the pre-test and post-test means for the control group which were considered equal. The experimental group pre-test mean was sig-

TABLE 2

Rank Ordered Means on Factor Q_1 .

Experimental post-test	Control post-test	Control pre-test	Experimental pre-test
5.291	5.613	5.646	5.871

TABLE 3

Differences Between Means on Factor Q_1 .

Group	Experimental post-test	Control post-test	Control pre-test	Experimental pre-test
Experimental post-test	----			
Control post-test	.322*	----		
Control pre-test	.355*	.033	----	
Experimental pre-test	.580*	.258*	.225*	----

* $p < .10$, 60 df.

nificantly greater than the control group pre-test and post-test means. Therefore, significant changes occurred between pre- and post-testing for the experimental group but no significant changes occurred between control group and pre- and post-testing.

This would indicate that as a result of participation in the groups the experimental subjects tended to become more conservative and respecting of traditional ideas and problems, as opposed to more experimenting, liberal thinking, and analytical. No changes in this factor were noted for the control subjects.

CHAPTER V

DISCUSSION

One of the criticisms of encounter or developmental groups has been that participation in such groups may result in profound effects in personality structure. The results of this study would indicate that this may not be the case. The lack of change reflected on the Sixteen Personality Factor Questionnaire may lend support to the point of view that the group process does not have major effects on relatively stable personality characteristics. Another point of view that might be considered is that there were an insufficient number of group sessions to effect changes in relatively stable personality traits and that the low intensity orientation was not sufficient to produce such changes.

In reference to the first point of view, Enfield (1972) found that significant change did occur at the $p < .05$ level of confidence on two of the sixteen personality variables studied. The controls were found to be higher on Factor B than the experimental group at the end of her project. Factor B is intended as a measure of general intelligence. The experimental subjects also were found to show more self-sufficiency, as measured by Factor Q_2 , than the control group after the project. A trend was also noted on Factor C, where

the controls indicated more ego strength than the experimentals. The results on Factor C did not reach the $p < .05$ level of confidence, but were considered significant enough to indicate a trend.

In the present study, Enfield's (1972) findings were not substantiated, but other trends were noted. It might therefore be hypothesized that developmental groups have varied effects on relatively stable personality characteristics and that those varied effects result from as yet uncontrolled variables associated with the developmental group process.

In the present study one factor that did reflect a trend, Factor Q_1 , revealed that those who participated in the groups became more conservative. On the surface it might appear as a result of experiencing oneself in a free, receptive and open atmosphere an individual might become more experimenting, liberal, free thinking, and analytical. This trend in the results indicates, however, that the experimental group became more conservative of temperament, respecting of established ideas, and tolerant of traditional difficulties. If the interpretation of this factor were accepted at that level then it might seem that the group process had an effect contrary to what many would expect. When considered from a positive point of view, however, the change on this factor could be considered beneficial. If as a result of sharing a group experience people become better able to tolerate and respect attitudes and ideas differing from their

own, then this would seem to give the group participants a quality that is much in demand in contemporary society. Only further investigation into this effect would be able to determine if this subtle trend is produced through group process.

The degree of structure and focus of such groups might also have an effect not revealed here. The groups in this study had no specific structure, focus, or goal, except to learn more about oneself. Groups with more specific goals or focus aimed at a limited facet of the personality might have more specifically observable results.

The personality factors included on the Sixteen Personality Factor Questionnaire are of a basic nature which may be influenced more by such factors as heredity and early childhood, rather than brief situational experiences in adulthood. It is possible, therefore, that the measure used in this study focused on such basic and stable personality factors that subtle changes occurring as the result of group experience may have gone undetected. Though the frequency of the group meetings was greater than in Enfield's study the present groups lasted only over a five week period of time. The possibility of greater effects may also exist in groups of longer duration or by increasing the intensity of the experience by lengthening the individual sessions.

CHAPTER VI

IMPLICATIONS

The results of the present study would seem to support the position that small developmental groups have little, if any, effect on the basic personality make-up of their participants. This finding may, however, be a result of the low intensity and short duration of the groups in this study. If this be the case, when the purpose of the group is limited to such things as getting better acquainted or sharing ideas, attitudes, and companionship, then the small developmental group of this type seems to be harmless if not beneficial.

If on the other hand the goal of the group were to be to create basic changes in personality structure, a framework with more specific focus and goals may be more appropriate.

If the effects of the groups are considered at lower levels of significance, the one notable outcome of this project appears to be that the participants in the groups tended to become somewhat more tolerant and accepting of traditional values. The change on this variable could also be interpreted to mean that the experimental group became more open, willing to listen, and considerate of others' points of view, as

opposed to becoming more experimenting, liberal, analytical, dogmatic, and free thinking. From a subjective viewpoint it would seem that participants who were exposed to a group situation where the emphasis was upon listening, sharing, and openness might indeed become more tolerant and accepting of ideas and others' attitudes.

From the results of this study it was concluded that the short term, low intensity developmental groups may not then be able to demonstrate significant effects on personality structure as measured by such instruments as the Sixteen Personality Factor Questionnaire. The process may, however, subtly influence such factors as the willingness to listen and tolerate alien ideas and attitudes. If this process does have such effects and does not harm the basic personality structure then it would appear that it would be worthwhile.

Increasing amounts of research are currently being conducted on the effects of the small group experience. It would appear from the results of the present study that more specific research is warranted in the areas of the intensity and length of groups as well as specificity of goals in order to create more discernible changes if in fact change is desired.

APPENDIX A

Points Used in Presentations Made to Solicit Volunteers

- (1) Each solicitor is to identify himself as a graduate student in clinical psychology.
- (2) "Developmental growth" groups which are similar to "encounter" groups will be conducted this semester in the Psychology Department.
- (3) The groups are called "developmental growth" groups which are similar to groups you may have heard of called "encounter" or "sensitivity" groups. Briefly the aims and content of the groups are:
 - (a) To get to know yourself better.
 - (b) To get feedback about yourself from others.
 - (c) To vent your feelings.
- (4) The groups are not for people with major adjustment problems.
- (5) The sessions will be kept on a positive basis, they are not designed to harm anyone, but to help each of the members become more aware of himself and others.
- (6) The groups are open to all freshmen who are enrolled in Psychology 100 courses this semester.
- (7) The groups will take place in the Psychological Clinic.

- (8) There will be four groups that will meet two times a week for five weeks.
- (9) The groups will meet in the afternoons on Mondays through Thursdays at four different times.
- (10) There will be two testing periods, one before and one after the group experience.
- (11) The tests that will be given during the testing periods will measure aspects of human functioning which may be affected by group experiences. The results will be kept confidential; the tests will not be evaluated individually.
- (12) Those volunteering for this project will receive psychology course credit for participation in a psychological experiment.
- (13) There will be 20 males and 20 females randomly selected from the volunteers to participate in the groups. Those who take the tests but are not selected will receive experimental credit and their names will be kept on file and will be notified for the opportunity to participate in future groups.
- (14) If a student volunteers and is randomly selected as a group member, he will be expected to attend every session. The progress of the group will be highly dependent upon everyone participating in every session.
- (15) The times for testing and group meetings are listed on the sheets that will be circulated in class. If

you would like to participate enter your name and
phone number in a time slot in which you will be
available twice a week for the next five weeks.

APPENDIX B

Description of 16 PF Factors*

<u>Factor</u>	<u>Low Score</u>	<u>High Score</u>
A	Reserved, detached, critical, aloof	Outgoing, warmhearted, easygoing, participating
B	Less intelligent, concrete-thinking	More intelligent, abstract-thinking, bright
C	Affected by feelings, emotionally less stable, easily upset	Emotionally stable, faces reality, calm, mature
E	Humble, mild, accommodating, conforming	Assertive, aggressive, stubborn, competitive
F	Sober, prudent, serious, taciturn	Happy-go-lucky, impulsively lively, gay, enthusiastic
G	Expedient, disregards rules, feels few obligations	Conscientious, persevering, staid, moralistic
H	Shy, restrained, timid, threat-sensitive	Venturesome, socially bold, uninhibited, spontaneous
I	Tough-minded, self-reliant, realistic, nonsense	Tender-minded, clinging, over-protected, sensitive
L	Trusting, adaptable, free of jealousy, easy to get along with	Suspicious, self-opinionated, hard to fool
M	Practical, careful, conventional, regulated by external realities, proper	Imaginative, wrapped up in inner urgencies, careless of practical matters, bohemian

<u>Factor</u>	<u>Low Score</u>	<u>High Score</u>
N	Forthright, natural, artless, unpretentious	Shrewd, calculating, worldly, penetrating
O	Self-assured, confident, serene	Apprehensive, self-reproaching, worrying, troubled
Q ₁	Conservative, respecting established ideas, tolerant of traditional difficulties	Experimenting, liberal, analytical, free-thinking
Q ₂	Group-dependent, a "joiner" and sound follower	Self-sufficient, prefers own decisions, resourceful
Q ₃	Undisciplined self-conflict, follows own urges, careless of protocol	Controlled, socially precise, following self-image
Q ₄	Relaxed, tranquil, unfrustrated	Tense, frustrated, driven, overwrought
Q _I	Low anxiety, adjustment	High anxiety, some maladjustment
Q _{II}	Introversion, shy, self-sufficient	Extraversion, socially outgoing, uninhibited
Q _{III}	Tenderminded, emotionally discouraged	Alert poise, enterprising, decisive, resilient
Q _{IV}	Subduedness, group-dependent, chastened, passive	Independent, aggressive, daring, incisive

*These are the descriptions given to the factors by Cattell on the 16 PF Test Profiles for Forms A and B, 1967.

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