

CHANGES IN PATTERNS OF PERSONAL VALUES
IN RELATION TO OPEN - CLOSED BELIEF SYSTEMS

Thesis for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
Clarence Gratton Kemp
1957



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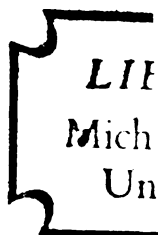
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Ph.D. degree in Admin. & Educ. Serv. (Guid.
& Couns.)

Walter F. Johnson

Date April 24, 1957



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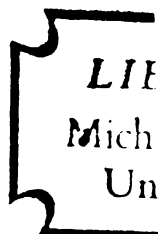
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~~APR 17 1974~~ 08

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ABSTRACT

CHANGES IN PATTERNS OF PERSONAL VALUES IN RELATION TO DOGMATISM

Statement of the Problem

Two interrelated problems were studied (1) Do the personal values of college students change following graduation? (2) Does dogmatism influence change? Interest in a third problem developed later: Do personal characteristics vary with dogmatism?

The Sample

Of 129 students of Missouri Valley College, who as seniors in 1950, participated in the procedures described below, 104 took part in the study in 1956. This sample consisted of 90 men and 14 women, between the ages of 23 and 28 at time of graduation in 1950.

Procedure

As a student, each had several counseling interviews, completed a questionnaire, and a battery of tests, which included the Kuder Vocational Record, Strong Vocational Interest Blank, Otis Test of Intelligence, A-S Reaction Study and A Study of Values. In 1956 each took again the Scale, A Study of Values and The Dogmatism Scale, Form E.

Change in values was investigated by means of a "t" test. To study the influence of dogmatism the correlation was found between dogmatism and change on each of the value subscales. This influence was investigated further by means of a study of the pattern of values of each group; the 25 with the highest scores in dogmatism, the 25

with the lowest, and the median group of 54. The "W" test of concordance was used to determine level of significance of communality in the pattern of each group. The significance of the differences in patterns was studied by means of a "t" test.

The characteristics of each of the groups in dogmatism were studied by the use of the results of the questionnaire and tests to which reference has been made.

Results

1. There were significant changes at the five per cent level on the theoretical, aesthetic and social subscales, the first two negative and the third positive. The change on the economic, political, and religious was not significant.
2. The relationship between dogmatism and change on each of the value subscales was not significant.
3. Before graduation the pattern of values of each of the Low, Median and High groups in dogmatism was identical. Six years later the Low ranked religious, social and theoretical, first, second and third; the High, religious, political and economic. The Median retained its pattern.
4. The characteristics of the Low group were in direct contrast to those of the Median and High groups. The majority of these two groups idealized their parents, identified strongly with some authority figure, had many childhood maladjustive symptoms, were quite dominant, ignored test results and

entered the vocation chosen in their teens.

Conclusions

1. Certain values change following graduation.
2. Change is complex. There are at least two kinds of movement which have been called change.
3. Dogmatism is influential in determining the possibility of change in the pattern of values and the characteristics of the pattern.

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by

Clarence Gratton Kemp

A THESIS

Submitted to the School for Advanced Graduate Studies
of Michigan State University of Agriculture and Applied Science
In partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Administrative and Educational
Services

1957

ACKNOWLEDGMENTS

The writer wishes to thank the members of his doctoral committee, Dr. Walter F. Johnson, Chairman, Dr. Milton Rokeach, Co.-chairman, Dr. Walker H. Hill, Dr. Harry W. Sundwall and Dr. Leo A. Haak.

He would like to thank Dr. Rokeach for permission to use the Dogmatism Scale and especially for his sincere interest, insight, and suggestions; Dr. Walter F. Johnson for his guidance in the development of the study, and continued suggestions; Dr. Walker H. Hill for his textual criticisms and interest; Dr. Leo A. Haak and Dr. Harry W. Sundwall for their confidence and encouragement.

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CHAPTER ONE

THE PROBLEM

The Setting

Although there is opportunity in the college community for the student to examine his values, many educators are concerned that he is not given more assistance in the integration of his ideas and in the patterning of his values. This is considered by some to be the most critical problem in the American University. The Harvard report concluded that the supreme need of American education was for "a unifying purpose and idea." Dr. Alfred Whitehead charged that the ancients endeavoured to give their students an integrated wisdom about life as a whole, but that we have slumped to the lower level of contentment with teaching many separate, unrelated subjects. Sir Walter Moberley attacks the consequent "fragmentation," "atomism," "departmentalism," in our education, with the result, as he charges, that "most students are nowhere confronted with the challenge or opportunity to see life steadily and whole." This "fragmentation," may or may not be the crucial problem of the university but it is one which makes difficult for the student the understanding of the contribution his studies can make toward his development of personal values.

There are other factors of course which affect the student's evolution of values. One of these, inherent in the mores of the college community, is the pressure to conform. The student quickly discovers

that his exhilaration of independence from former restraints is short lived. Because these mores are so powerful, he becomes a conformist, assuming the bonds sanctioned by his college peers. College life, on the other hand, may contribute to the emancipation of many minds. Those who delve into the problems of philosophy or struggle with the issues of religion may gain a new understanding of the meaning of existence. For those who search in the humanistic studies there are insights into the meaning of freedom, for those who go beyond the mastery of the formulae of the sciences there are insights into the processes of reflective thought. In the conduct of many extra-curricular activities there are opportunities for experiencing the responsibilities of making judgments. Freedom of the mind, on most campuses, has considerable prestige.

2. Values and the Student's Decisions

The reasons given by some students for the choice of a major, for joining a sorority or fraternity, for securing good grades, and for desiring a certain position following graduation are at best, rather disconcerting. Too many, it seems, are formed solely on the basis of personal expediency. Some display a lack of any consciously elaborated values. Others reveal an identification with the values of an authority figure. It appears that the students are in need of relating their mediate theories of value to the more ultimate theories of philosophers and theologians.

3. Values and the College.

There is no doubt that values are receiving more attention by college authorities. There is also an increasing awareness that questions of value permeate all areas of college life. Professor Hartman reports that "in the current evolution of undergraduate education at the Massachusetts Institute of Technology there has been an increasing concern with values - in curriculum planning, improvement of teaching, and the development of residential facilities; in all levels of administration; in faculty committees; in admissions; in scholarships, and student aid; in public relations." (14)

There are many unanswered questions, and little unanimity among those answers which have been attempted. One disturbing question confronting educators is the method to use in the development of student values. The rationalist emphasizes the study of the classics, the philosophy and the law codes of the past. The instrumentalist places greater faith on critical analysis and evaluation, and emphasizes the development of critical thought with reference to current situations.

Some educators are inclined to rely on science for aid in the development of values. It is not the role of science, however, to determine the range of worth within contrasting sets of values or theories. Science may be capable of the prediction of the consequences of basing actions upon particular values, but cannot tell men how to live. College students should develop a concern regarding the possible

outcomes of the application of the values they choose. Science may share in this development by asking that the student and citizen act responsibly.

4. Need for the Study

It is the view of Dr. Alfred Whitehead that value is perceived in some concrete example in the active world. Conversely each significant activity embodies a persisting value. The question might be asked: Do values change, or, once established, do they persist, regardless of environmental pressures? Do values established in college, continue to guide the graduate or are these replaced by others, as he enters his profession? It may be that the theories dimly discerned in college leave the graduate to the mercy of the first breeze of expediency. Perhaps some students enter college so dominated by second hand values in their developmental years that they find it difficult, if not a breach of ethics, to entertain the possibility of the existence of other values worthy of consideration. On the other hand, a large proportion of students may find the college experience of great benefit in developing their value patterns.

A great many studies may be necessary in order to find answers to these provocative questions. In this study two small facets have been chosen for investigation. This investigator through his experience as a clergyman, college teacher and counselor has been a close observer of the student and graduate. The need for more scientific knowledge concerning the value patterns of graduates had

become evident through these experiences.

Undoubtedly more knowledge of the psycho-dynamic factors which influence the value patterns of graduates would be an asset. If such knowledge were available it is conceivable that better assistance might be given future students and citizens to exert their capacities more fully and more critically in the discernment of value.

The comparison of value patterns of students and graduates and the obtaining of useful insights with regard to this comparison, is the purpose of this study.

5. Statement of the Problem

This study is concerned with two interrelated problems, (1) Do personal values change following graduation from college, and (2) What is the relationship, if any, between the degree of dogmatism and change in personal values, following graduation? Thus the support of two hypotheses is sought:

- (1) That personal values undergo a change following graduation from college.
- (2) That dogmatism is a factor which influences change in personal values.

Data¹ related to these hypotheses were obtained from 104 alumni, who graduated from Missouri Valley College.²

¹One hundred and twenty-nine students were enrolled in the program. All were contacted; One hundred and four replied.

²A Presbyterian church related coeducational liberal arts college.

6. Definition of Terms

(a) Personal Values

For the purposes of this study, personal values are those which can be differentiated and considered by the use of Allport and Vernon's A Study of Values, which is designed to measure Spranger's six values: Theoretical, Economic, Aesthetic, Social, Political and Religious. Following are brief descriptions of each of these values. More comprehensive explanations are given in the Manual in Appendix One.

The dominant interest of the theoretical man is the discovery of truth. His interests are empirical, critical, and rational and his chief aim is to order and systematize his knowledge.

The economic man is characteristically interested in what is useful. His interest in utilities develops to embrace the practical affairs of the business world. This type is thoroughly "practical." In his relations with people he is more likely to be interested in surpassing them in wealth than in dominating them (political attitude) or in serving them (social attitude).

The aesthetic man sees his highest value in form and harmony. In social affairs he may be said to be interested in persons but not in the welfare of persons; he tends toward individualism and self-sufficiency. In the field of religion he is likely to confuse beauty with purer religious experience.

For the social type, the highest value is love of people,

whether conjugal, filial, friendly or philanthropic. The social man prizes other people as ends and is therefore himself kind, sympathetic, and unselfish. In contrast to the political type, the social man regards love as itself the only suitable form of power, or else repudiates the entire conception of power as endangering the integrity of personality.

The political man is interested primarily in power. In many of these the desire for expression of this motive is uppermost. They wish above all else for personal power, influence, and renown.

The highest value of the religious man may be called unity. He seeks to comprehend the cosmos as a whole, to relate himself to its embracing totality.

Spranger does not imply that a given man belongs exclusively to one or another of these types of values. In every personality, as the results show, there exist all of these six values in varying degrees of prominence.

(b) Dogmatism

Dr. Milton Rokeach who validated the Dogmatism Scale has provided the following definition in the Psychological Review.

(24)

Dogmatism is a relatively closed cognitive organization of beliefs and disbeliefs about reality, organized around a central set of beliefs about absolute authority, which in turn provides a framework for patterns of intolerance and qualified tolerance toward others.

7. Limitations of the Study

In examining the reliability data, one definite weakness of the scale, A Study of Values, appears. The social value sub-scale is relatively unreliable. Since the total scale yields only relative value scores for each of the six values (the total combined score of the six sub-scales cannot exceed 180), one unreliable sub-scale would have the tendency to reduce the reliability and indirectly the validity of the others.

A second limitation of the scale is the relatedness of the scales. Although Spranger represents them as otherwise, factor analysis studies by Lurie (16) and by Wickert (35) reveal that significant correlations exist between the political and economic and also between the theoretical and aesthetic values. These studies indicate that the six specific factors have not been clearly isolated, in terms of what the scale measures.

Since the scale, A Study of Values, is capable of "revealing only the relative importance of each of the six values in a given personality, not the total amount of 'value energy' or drive possessed by the individual," (2) The Dogmatism Scale is required to react to relative change, not complete change.

The Dogmatism Scale was not administered at the time of the test, therefore there is no knowledge of the degree of dogmatism of the subjects at that time. Whether the degree of dogmatism remained stable, or changed as the values changed is therefore unknown.

8. Organization of the Study

Chapter one provides a brief description of the setting of the study which centers in the increasing necessity for greater understanding of the value patterns of college students.

Chapter two presents a review of significant literature; an examination of the research which has been conducted on the values of college students, with the indications of the necessity for further studies, if this area of college experience is to be understood.

Chapter three describes the sampling procedures used in the study, the reliability and validity of the instruments: A Study of Values and The Dogmatism Scale, and the methods of analysis employed. These methods include a study of the sample as a whole; and of the sample divided, on the basis of the degree of dogmatism into three groups, Low, Median, and High. Results of other tests and autobiographical material used in the study of the three groups are also included.

Chapter four presents the analysis of the data, describing the relationship of dogmatism and change in value patterns, and indicates evidence of the influence of childhood experiences on future development.

Chapter five summarizes the findings and presents the conclusions, and suggestions for further research.

CHAPTER TWO

REVIEW OF SIGNIFICANT LITERATURE

With Reference to Personal Values

The following selection of studies present a representative sample of the investigations of personal values which have been undertaken. These investigations indicate various interests, but for purposes of convenience, can be loosely organized under three broad headings:

(a) The relationship between vocations and personal values, (b) student value problems, and (c) The stability of personal values.

(a) The Relationship Between Vocations and Personal Values

Pintner (20) found that graduate students in education revealed different types of interest according to their various professional positions. He found those considered as the best prospective school psychologists, to be high in social and low in political and economic interests. Among this group of students, theoretical interests tended to accompany liberal attitudes with reference to religion, war, and the negro; whereas political and economic interests accompanied a more conservative attitude toward these problems.

Stone (27) using as a sample, 279 sophomores in Dartmouth College, discovered the business group high in the economic but rather low in the theoretical and aesthetic. Prospective bankers were strongly marked by economic outlook and religious disinterest. The future doctors were outstanding in the theoretical concern and characterized



by economic and political apathy. The teachers-to-be were notable for the high negative economic score, strong aesthetic tendencies and high religious feeling. Those of literary intentions were high in aesthetic and were the group of strongest religious interest.

Postman et al. (21) conducted an experiment with 25 subjects, students at Harvard and Radcliffe, to support the hypothesis that personal values are demonstrable determinants of the individual's perceptual selection from his environment. Their evidence led to the conclusion that value orientation makes for perceptual defense against inimical stimuli, and gives rise to a process of value resonance which keeps the person responding in terms of objects available to him, although such objects may be absent from his immediate environment.

Harris (13) studied a sample of 388 Lehigh students and sixty-two faculty members who filled out the Allport-Vernon Values questionnaire. He found that men majoring in liberal arts scored higher than those in Business and Engineering on theoretical and aesthetic values, and lower on political; pre-medical men, higher than pre-legal on theoretical values, lower on political; and most students lower on religious than on any other.

(b) Student Value Problems

Orwig (18) investigated "Student Value Problems" as a thesis study in 1955. The sample used was 522 students, freshmen and

sophomore men and women enrolled in the Effective Living Course in the Basic College of Michigan State College. The purpose of the study was to gain information concerning the types and frequency of the problems of students in five value areas, truth, good, beauty, right, and religion and to examine the sources of guidance in the college community in which students felt that they should be able to receive help and as well the sources at which they felt they had received help in regard to problems related to value standards. He developed and used a questionnaire of three parts. Part one was used to secure background data; part two, to secure a list of student problems in the five areas; and part three, to secure a listing of sources through which the students felt they should secure help with these problems, and where they actually did find help.

One-third or more expressed concern with general problems in value areas in the following order of intensity: a concern for clear and logical thinking, adequate goals and objectives; adequate aesthetic standards; and religious issues. They reported also that they experienced the greatest amount of guidance from informal sources. College courses as a source of help were ranked very low.

(c) The Stability of Personal Values

Whiteley (33) at Franklin and Marshall College administered the Scale of Values to 84 students once each year from freshman to senior years. He found slight tendency for the aesthetic scores to increase and for the religious scores to decrease

during the four years. He concluded that values are fairly stable and the college experience does not change them.

Kelly (15) reported on a twenty-year follow-up study of 300 engaged couples, of whom 215 males and 231 females participated in the follow-up study. His purpose was to study five different aspects of marriage, one of which was how individuals change during the course of marriage. He used a number of standardized instruments and a graphic personality rating scale which he developed. One of the instruments used was the 1931 Allport-Vernon Scale of Values. He studied the scores of the male and female separately and in the retest found 5 of the possible 12 changes statistically significant. Three of the changes were made by the men and two by the women. After 20 years the men placed less value on the aesthetic and theoretical and more on the religious; the women placed less value on the aesthetic and more on the religious. These changes were significant. The greatest change was on the religious; both men and women averaging five points higher. Dr. Kelly offers two tentative explanations for this increase, a cultural shift over the 20 years toward religion, and that people may become more religious as they grow older.

Todd (30) administered the Scale of Values to 94 students in the last year of high school and again at the beginning of the sophomore year in college. These students attended various colleges. Todd discovered that there is a change in student values and that the change is in the direction of values generally emphasized in the

contemporary American culture.

Dr. Todd described the contemporary American cultural norms in the following statements: "The emphasis on securing tangible wealth (economic), gaining renown and power (political), and the utility of scientific knowledge (theoretical), greatly outweighs the consideration of improved social conditions (social), the unity of religious experience (religious), and the aesthetic satisfaction of life (aesthetic)." (30) He found that the student values in the sophomore year assume the order of dominance of values: economic, theoretical, political, social, religious, and aesthetic. By implication Dr. Todd pointed out that apparently our colleges are merely reflecting the cultural norms, namely emphasizing in the development of the personalities of their students the same values that are dominant in our contemporary culture.

Arsenian (8) gave 76 students at Springfield College, Massachusetts the Allport-Vernon Scale of Values, when they were freshmen and again in the senior year, prior to graduation. Arsenian found statistically significant changes in student values between the freshman and the senior year. He found also that these changes depend on the philosophy, curricular content, and the general emphases of the major divisions in which the student elects to do his work. Arsenian concluded that the value patterns emerged or developed "in agreement with the dominant or 'average' contemporary cultural norms."

These research scholars have clarified the function and stability of personal values during college years. They have produced evidence to show that in a college community, values apparently conform to significant pressures. This evidence, however, does not provide knowledge with regard to the stability of personal values following graduation.

II. With Reference to Dogmatism

This section commences with a brief orientation and concludes with the rationale for the use of The Dogmatism Scale in the study. The aim is to provide some understanding of the nature, operation and function of the Belief-Disbelief System.

1. Some Considerations

Some graduates confronted with new problems may feel compelled to maintain their pattern of values and to resort to stereotype solutions, although other solutions may be apprehended.

It is also reasonable to assume that others, confronted with the same problems, may not feel so compelled. They will therefore comprehend, analyze, and evaluate the internal and external relationships of the problem, and when necessary, move toward new and constructive solutions, their pattern of values being changed in the process.

By means of the arithmetical "water jar" problems,¹ Solomon (26) classified students in two groups, "relatively rigid" and "relatively non-rigid." He also administered the California Ethnocentric Scale as a check on the classifications. These students were asked to answer three questions: (1) How do plants adjust and coordinate to the factors in the environment? (2) Why do plants bend toward the light? (3) Do plants grow more during the daytime or during the night? Why? Then they were taught through experiments in the laboratory the principles necessary to answer these questions correctly. These questions were repeated. Among his findings were these: "that the

¹The problems presented for solution involved the measurement of a designated volume of water by the manipulation of the contents of three jars of known capacities.

Problems solvable by one complicated method were presented for solution in order to establish a mind set. These were followed by a number of problems, called critical problems, which are similar in appearance but solvable either by a previously employed complicated or a simpler method. Following is a sample of the complicated type of a problem for which there is only the complicated method of solution. In jar A are 31 quarts, in jar B, 61, and in jar C, 4; what is the method in order to have exactly 22 quarts in one of the jars? The method of solution would be B-A-2C.

Following this type are given what is called critical problems, solvable by a simple method as well as by the rigid. For example: A has a capacity of 23 quarts, B 49; and C, 3 quarts; and the quantity of water required is 20 quarts. In this example the rigid method of solution is $49-23-3-3=20$. A subject who gives the B-A-2C solution to a critical problem in which a simpler solution is possible, may be said to be solving such a problem in a rigid manner.

non-rigid group was better able to see causal relationships in this laboratory study," and, "that the ability of the rigid and non-rigid groups to accept new evidence and, on the basis of this, overthrow preconceived idea, was in favor of the non-rigid group." Thus, it may be concluded that the more rigid individuals experience greater difficulty in accepting new ideas, and on the basis of new knowledge, in overthrowing preconceived ideas.

2. Early Insights

Further understanding of a possible reason for this stereotypic thinking was provided by a report by Else Frenkel-Brunswik. (11) In this paper, based on psychoanalytic concepts of ambivalence, she developed the idea that as a result of the early parent-child relations there emerge degrees of variance in the ability of the youth to tolerate ambiguity and that this emotional and social ambivalence manifests itself also in the cognitive spheres (thinking, perception and memory). In this way she established a relationship between personality variables and cognitive variables. This gave impetus to the method of studying personality via the study of cognitive structures.

The research on the authoritarian personality provided insights, but because it investigated only the relationship between "one particular set of beliefs, at most, one particular ideology, and cognition" it did not provide a broad general theory for the

clarification of the relationship between the organization of belief and the organization of cognition.

The possibility of arriving at a "more general theory of intolerance and authoritarianism regardless of specific ideological content" through the study of the cognitive structures, became the special area of research of Dr. Milton Rokeach and his associates. Dr. Rokeach writes:

The research I have been pursuing recently began with what I might call a "quasi-clinical" approach. Over the past few years I have had occasion to observe in real-life settings, a number of persons--mainly intellectuals--who on intuitive grounds appeared to be characteristically dogmatic in their mode of thought and belief. What it is they were dogmatic about varied, of course, from one person to another. They represented various shades of political and religious--and scientific viewpoints. Thus, it was possible to observe a variety of manifestations of what appeared to be dogmatism among liberals, middle-of-the-roads and conservatives, Jews, Catholics, and Atheists, Freudians, Hullians, and Gestaltists. (22)

In his observation and analysis of dogmatic thought and belief it appeared to him that dichotomy between ingroup and outgroup and the beliefs associated with each was greatly over-simplified. He concluded that, instead, the individual accepted a system of beliefs on one hand, and on the other, rejected a series of systems of beliefs. Further, he observed that the individual's rejection of these several systems varied in both extent and intensity. This preliminary investigation led "to formulation of the major construct-intervening variable namely, the Belief-Disbelief System."

3. The Belief-Disbelief System

A. Definition He describes the Belief-Disbelief System as follows:

The belief system is conceived to represent all the sets, or expectancies, or hypotheses a person may have at any given time which he accepts as true, to one degree or another. The disbelief system is conceived to be composed of a series of disbelief sub-systems rather than just a single one within which are represented all the sets, expectancies, or hypotheses which a person at any given time accepts as false, to one degree or another. By all I mean to say that the belief-disbelief system is conceived as a psychological system and not just as a religious system or a political system or a scientific-etc., system. It is conceived to include each and every belief and disbelief of whatever sort the person may have built up about the world one lives in. It is the psychological counterpart of ideology but may be more or less internally (logically) consistent than institutionalized ideology and may represent additional beliefs and disbeliefs not even represented in an institutionalized ideology. (22)

In accordance with his assumption that the cognitive systems are organized into two interdependent parts, a belief and disbelief system, Rokeach has conceived the following viewpoints with relation to organization and function.

B. Organization Along a Belief-Disbelief Dimension

The disbelief system of the person is considered to consist of several sub-systems arranged along a continuum of similarity to the belief system. The extent of the person's rejection of each sub-system has some systematic relation to the similarity-dissimilarity. (22) Rokeach conducted research on this relationship (the disbelief

gradient).

Independent studies were conducted with two religious groups, Methodists and Roman Catholics. Rokeach and Jenson found that both groups showed that "there is relatively greater rejection of disbelief-sub-systems most similar and least similar to their own," and "least rejection of disbelief subsystems occupying intermediate positions along the similarity continuum." (22)

C. Properties of the System

The system varies also according to the following properties;

(i) Isolation - "This refers to the degree of communication or interconnectedness between and within belief and disbelief systems." This presence of isolation is "manifested by the existence of contradictory beliefs within the belief system." Orwell (19) describes it as the degree to which one emphasizes the differences rather than the similarities between belief and disbelief systems, the extent to which one perceives as irrelevant what may well be relevant, and the extent of cognitive denial of opposing or contradictory facts on the basis of appearances.

(ii) Differentiation - Based on the assumption that -

"there are varying degrees of discrepancy in the degree of differentiation of the belief system as compared with the disbelief system, and among the several disbelief sub-systems with respect to each other." (22) It is manifested by "the relative

amount of knowledge possessed about one's belief system as compared with each of the belief sub-systems, and the extent to which adjacent disbelief sub-systems are differentiated or seen as the same." (22)

(iii) Comprehensiveness of the System

"This refers to the total number or range of disbelief sub-systems represented in a given belief-disbelief system." (22)

D. Dimensions of the System

1. Identification

The cognitive belief-disbelief system is also conceived as being organized along a central-peripheral dimension. Three sets of belief-regions have been distinguished.

- (i) A central region representing what I call one's "primitive beliefs." These have to do with all the beliefs a person has developed through interpersonal experiences rather than through formal indoctrination about the world one lives in, and the nature of the "self" and the "generalized other."
- (ii) An intermediate region representing the beliefs a person has in and about the nature of authority depended on to form a picture of the world he lives in, rational insofar as possible and rationalized insofar as necessary, to steer a homeostatic course through life;
- (iii) A peripheral region representing the beliefs perceived to emanate from authority, whatever its nature, such beliefs filling in the details of this world-picture. (22)

2. Nature

The nature of these beliefs differs from region to region. With reference to the central region, the emphasis is the specific content about the person's social world, and the content

of his self-concept of others.

In the intermediate region concern is with the person's beliefs about authority, ranging from rational at one extreme to arbitrary at the other. Authority is not positive but also a gradient of negative authorities corresponding isomorphically with the disbelief gradient.

A second concern is beliefs about the existence or non-existence of a true cause, one elite, one bible, etc. Also included are beliefs about people who hold beliefs in agreement or disagreement with one's own. In this area formal content is significant. All of a group may believe in the Bible, but vary greatly in their beliefs concerning it.

The peripheral gains its chief importance from its structural interrelationships with the central and intermediate regions. Incoming information which is not rejected or greatly narrowed goes to the intermediate region in which it is altered or rationalized to the degree necessary to be acceptable and then goes to the peripheral region. Here takes place the operation of fitting and filing this new or modified belief or disbelief into the world outlook of the individual. Whether this new or modified belief influences or relates itself to other beliefs in the system, depends upon the degree of isolation among such beliefs. The greater the isolation the less effect one belief has on another. This is the manner in which a conceptual differentiation is made between "party-line" change and a more "genuine" change.

3. Organization

Organization along a time perspective dimension is the third dimension. (22) This refers to the beliefs one holds concerning the present in relation to past and future. Operationally it varies from narrow to broad. If narrowed, the present is unimportant in its own right; it is the past or the future which counts and the belief that one knows what the future will bring.

E. Operation of the System

If it is assumed that these three dimensions and their properties are intercorrelated, they may for the expediency of quantitative measurement be reduced to a single dimension which would permit the consideration of the organization of the total belief-disbelief system along a continuum from open to closed. The belief-disbelief system is then considered to be closed to the extent that:

(1) with respect to magnitude of rejection at each point along the belief-disbelief continuum

- (i) the magnitude of rejection at each point along the disbelief-gradient is relatively high
- (ii) there is isolation of parts within and between belief and disbelief systems
- (iii) there is a discrepancy in degree of differentiation between belief and disbelief systems
- (iv) there is dedifferentiation within the disbelief system.

(2) with respect to the organization along the central-periph-

eral dimension.

- (i) the specific content of primitive beliefs (central region) is to the effect that the world one lives in, or the situation one is in at a particular moment, is a threatening one.
 - (ii) the formal content of beliefs about authority and people who hold to systems about authority (intermediate region) is to the effect that authority is absolute and that people are to be evaluated according to their agreement or disagreement with the beliefs such authority represents.
 - (iii) the structure of beliefs and disbeliefs, perceived to emanate from absolute authority (in high communication with intermediate beliefs), is isolated with respect to each other, and finally,
- (3) with respect to the organization along the time perspective dimension, there is a narrowing of time perspective. (22)

F. Function of Belief-Disbelief Systems

The centrally located beliefs are part of a closed system to the extent to which they form the cognitive bases for authoritarianism and intolerance.

To the degree that the belief-disbelief system is closed, there is assumed at the center a set of absolute beliefs about positive and negative authority, and other closely related beliefs representing attempts by such authority to reinforce and perpetuate itself.

Therefore, with an increase in dogmatism, the following results may be expected:

- (1) an increasing admiration or glorification of those perceived in positive authority, and increasing fear of those in positions opposed to positive authority;

- (ii) an increasing strength of belief in a single cause, and a decreasing tendency to admit the legitimacy of other causes;
- (iii) an increase in the strength of belief in an elite which may be of any character, political, religious, hereditary, or intellectual.

Coordinated with these beliefs are others representing organizations of people according to the authorities with which they identify themselves. There are increasing cognitive distinctions between the faithful and unfaithful, orthodoxy and liberalism, friend and enemy. Those who disagree are rejected, while others are accepted as long as, and on condition that they agree. In this manner, the problem of acceptance and rejection of authority becomes linked, not only with authoritarianism, but also with the acceptance and rejection of ideas. The most distinguishable behavioral manifestation of this relationship is the use of opinionated language. This language is characterized by the use of opinionation in communicating beliefs and disbeliefs to others. This opinionated language may be described as opinionated rejection and opinionated acceptance. Opinionated rejections are those statements which imply absolute rejection of a belief and at the same time rejection of those who accept it. Opinionated acceptances are those statements which refer to an absolute acceptance of those who agree with it. Opinionated acceptances also vary directly with dogmatism.

It is assumed that both institutional and individual dogmatism represent a total ideological defense against threat. Maslow (17) concludes that the individual, through dogmatic thinking and believing, wards off threatening aspects of reality which at the same time provides him with a compensatory feeling that he understands it.

Threats to the institution, internal or external, are perceived by the individual as pertaining to its continued existence and to the belief-disbelief system for which it stands. Threats to the individual are the outcome of those adverse societal conditions which impinge upon his personal life. Fromm (12) believes that to the degree that individuals feel alone, isolated and fearfully anxious about the future, they become disposed to accept closed ways of thinking and believing. Such feelings accentuate a need for recognition and power. This excessive concern is considered by Sullivan and Adelson (29) to call forth attitudes of egotism on the one hand and misanthropy on the other. The rationalization on and justification of this morally egocentric attitude toward the self and rejection toward others is provided for through the systematic cognitive structure of the system. The more the individual finds it necessary to use the psycho-analytic mechanisms of identification, reaction formation, rationalization, denial, projection, the more dogmatic he becomes, his belief-disbelief system representing a tightly-woven network of cognitive defenses.

III. Conclusions

This personality variable now known to relate in systematic fashion, attitudes and cognition, and concerning whose influence studies have already been made, may prove itself capable of enlarging our knowledge concerning the behavior of personal values.

Dogmatism then is considered to play an important part in the functioning of the cognitive structure of the individual. Certain experiences appear to be conducive to the development of a belief-disbelief system which disposes the individual to avoid new ideas and values, because they are threatening, and to accept closed ways of thinking. This is the frame-work of thought which suggested the second hypothesis. In accordance with the principles of the belief-disbelief system it is anticipated that the values of those who manifest only a small degree of dogmatic thinking as measured by The Dogmatism Scale will change differently from those who manifest a considerable degree of dogmatic thinking.

CHAPTER THREE

METHODOLOGY

The purpose of the study has been outlined in chapters one and two; recent studies in personal values have been summarized, and a description provided of the Belief-Disbelief System on the theoretical framework of which The Dogmatism Scale is based.

In chapter three is presented a discussion of the suitability of the two scales, A Study of Values and The Dogmatism Scale with reference to their reliability and validity. Following this is a description of the sampling procedure and of the program of the American Humanics Foundation, in which the students who participated in the study were enrolled. Finally there is a discussion of the procedures used in the analysis of the data.

1. Criteria of Personal Values

The Allport and Vernon Scale, A Study of Values was chosen as the instrument for studying personal values. As mentioned previously, the use of this instrument by other authors had demonstrated its ability to differentiate and measure the values of college students.

(20) The purpose of this scale, A Study of Values, (2) is to measure the prominence of six basic interests or motives in personality; the theoretical, economic, aesthetic, social, political, and religious. This classification is based directly on Spranger's "Types of Men."

(16) This work defends the view that the personalities of men are

best known through a study of their values or evaluative attitudes. The scale consists of 120 questions, 20 of which refer to each of the six values. The questions are based upon a variety of familiar situations to which are provided two alternative answers in Part I, and four alternative answers in Part II, as shown in the test, A Study of Values, Appendix II.

Some consideration was given to the advisability of using the old form or the revised edition of 1951 in the retest situation. The authors of the revised edition, Allport, Vernon and Lindzey concluded that the low reliability (.3) of the social scale in the old form resulted from the overbroad interpretation offered by Spranger, who represented the social value by love in any form, - conjugal, familial, philanthropic or religious.

It was their contention that people are not as a rule consistently "social" in all of these senses. They therefore limited the items in the revised edition to measure only altruistic love or philanthropy. This, of course, lowered the correlation between the old form and the revised edition of the social scale. A correlation based on a sample of 50 male college students of the American International College, provided by Dr. Dorothy Spoerl, is given as .31. Based on these considerations the revised edition was rejected and the old form (1931) which had been used in the original test was used in the retest.

With reference to the concurrent validity of the old form,

Allport and Vernon write:

When the ratings (the average of five external and one self-rating in a group of 48 subjects) are correlated with the total test, one obtains a coefficient of plus .532. Since the reliability of all the ratings was only plus .539, the theoretical agreement between test and ratings, corrected for attenuation, is plus .826, a figure very close to that for the theoretical validity, (plus .85). Fair agreement has also been found between test scores and results of certain related tests such as the Freyd and Strong interest blanks and a word association method. The Horshach inkblots give high correlations with aesthetic values. (2)

Allport and Vernon also administered the scale to groups whose characteristics were known. They found that women were higher in aesthetic, social, and religious values, and men in theoretical, economic and political values. Business salesmen (male) were highest in economic and political, law students (male) in political, students in literature (female) in aesthetic, and missionaries (both sexes) in religious values. (2)

The reliability was determined by computing split-half reliability coefficients for each of the six values and for the scale as a whole. In a typical group, the split-half reliability coefficients were: .62, .72, .84, .49, .53, and .84, for theoretical, economic, economic, aesthetic, social, political, and religious values respectively. The split-half reliability of the total test is fairly satisfactory. For 776 subjects of both sexes a reliability of + .72 was obtained. (2)

Further evidence indicating the validity and reliability of The Study of Values is presented by Cantril and Allport, when they state:

.....the evidence from recent applications of The Study of Values must be interpreted as establishing these values..... as self-consistent, pervasive, enduring, and above all, generalized traits of personality. Several experiments demonstrate a clear relationship between values and conduct. They show that a person's activity is not determined exclusively by the stimulus of the moment, nor by a merely transient interest, nor by a specific attitude, peculiar to each situation which he encounters. The experiments prove, on the contrary, that general evaluative attitudes enter into various common activities in everyday life, and in so doing help to account for the consistencies of personality. (9)

2. Criteria of Dogmatism

The second focus of interest required the use of some means of measuring the psycho-dynamic factors of change in personal values. This prompted the study of the present available resources for doing so and the selection and use of The Dogmatism Scale, developed and standardized by Dr. Milton Rokeach. This scale, based upon the principles previously described, appeared to have the possibility of some illumination and explanation of the dynamic forces underlying the behavior of personal values.

Construction of the Dogmatism Scale

There were five revisions concerned with the structure, formal content and function of dogmatism. The purpose of the revisions

was to include the "modifications and increasing refinements over a two-year period in our theoretical formulation of the construct of dogmatism," and "to increase reliability." (24)

The fifth and final edition is composed of the best 40 items taken from the preceding 66-item scale. Most of the items in The Dogmatism Scale were constructed by Dr. Kossach himself; the remaining few were taken from the work of others.

The final scale "E" was used with students attending universities in Michigan, New York and England, and as well, a group of automobile workers in England. This form was found to have a corrected reliability of .81 for the English II sample of university students, and .78 for the English worker sample.

Two methods were used to establish validity, (a) validation by the method of known groups and (b) theoretical considerations. Three hypotheses were set up for validation: 1. That dogmatism is related to some independent measure of authoritarianism. 2. That its relation to opinionation should be a function of positive relations to both left and right opinionation. 3. That the greater the group pressures toward commitment -- religious or political, left-of-center or right-of-center, the greater the dogmatism and opinionation.

The first hypothesis was established on the basis that it should be possible to demonstrate that dogmatism is related to some independent measure of authoritarianism. It was reasonable to expect that

scores on The Dogmatism Scale would be to a considerable degree related to scores on the F scale, (24) the widely accepted measure of authoritarianism. However if The Dogmatism Scale represented a measure of authoritarianism, regardless of specific ideological or attitudinal position it should be relatively independent of position along the left-to-right continuum, and correlate with F Scale independently of these variables.

The second hypothesis assumed that since a characteristic of dogmatism is opinionation, scores on these two scales should be systematically related. However the relation of dogmatism to opinionation should differ from the relationship between other scales, thus for dogmatism it was hypothesized that its relation to opinionation should be a function of positive relations to both left and right opinionation.

It has long been known that institutionalized hierarchially organized groups such as the Roman Catholic Church and Communists demand adherence to their religious or political doctrines. Such strong group pressures are assumed to affect the cognitive organization and development of a person's belief-disbelief system. These pressures increase isolation within and between belief and disbelief system. Accordingly, it was hypothesized that the greater the group pressures toward commitments, the greater the dogmatism and opinionation.

The results obtained to test Hypothesis A show that The Dogmatism Scale measures authoritarianism to the same extent as does the F scale.

(24) However The Dogmatism Scale measures authoritarianism more or less independently of the left-right continuum. This the F Scale does not do.

In relation to Hypothesis B, The Dogmatism Scale correlates positively with the Left and Right Opinionation sub-scales. Thus it supports the hypothesis that dogmatism is relatively independent of position along the continuum, since intolerance, whether left or right, is positively associated with it.

In testing Hypothesis C. external criteria (known religious and political groups) were employed. It was anticipated that these groups would manifest, generally greater dogmatism and opinionation. It was possible, also, to test the contrasting properties of the Dogmatism and Opinionation. These corroborate the hypothesis, indicating again that while F and E Scales measure right authoritarianism and intolerance, the Dogmatism and Opinionation Scales measure general authoritarianism and intolerance. These group differences support the hypothesis that differences in amount of pressure exerted upon group members plays an important role in determining dogmatism and opinionation.

The Dogmatism Scale Form E, developed and standardized by Dr. Rokeach, has demonstrated its validity. It is broader than the California Ethnocentrism Scale, Form F, since it measures authoritarian-

ism independently of the left-right continuum. It has demonstrated its ability to correlate positively with the Left and Right Opinion-ation sub-scales, and finally it has correlated positively with external criteria manifesting generally greater dogmatism and opinion-ation.

3. Sampling Procedures

The participants in the study were 104 of the 129 students, graduates of Missouri Valley College in 1950, who had taken the Allport and Vernon Scale, A Study of Values, prior to graduation. A breakdown of the subjects with respect to sex, age, religion, marital status, veteran status and occupation is given in Tables I and II.

These students majored in a special curriculum leading to an A.B. degree in Human Relations, in preparation for the position of Boy Scout Executive, Y.M.C.A. Secretary, and Y.W.C.A. Secretary. The last two years were spent in study in this major field. This program is outlined in Appendix VII. Contacts were made with prospective employers who came to the campus to interview graduating seniors. Men and women employed in these vocations also visited the campus during the student's junior and senior years, speaking on topics related to their vocations. The program was sponsored by the American Humanics Foundation for the following purposes:

TABLE I

A BREAKDOWN OF THE 104 SUBJECTS AS OF 1956

BY SEX, AGE AND RELIGION

Sex	Male	90
	Female	14

Age	29-31	93
	32-34	11

Religion	Protestant	83
	Roman Catholic	20
	Jew	1

TABLE II

A BREAKDOWN OF THE 104 SUBJECTS AS OF 1956
BY MARITAL STATUS, VETERAN STATUS, AND OCCUPATION

Marital Status	Married	89
	Single	15

Veteran Status	Veteran	69
	Non-Veteran	35

Occupation	Army (Professional)	5
	Air Force "	2
	Navy "	2
	Boy Scout Executive	37
	Boys' Counselor	1
	Business	19
	Banking	3
	Clerical	4
	Managerial	3
	Interviewing	3
	Salesman	4
	Secretary	2
	Engineer	2
	Housewife	8
	Director of Community Services	2
	Executive Director of Salvation Army	1
	Occupational Therapy	1
	Medicine	1
	Minister	8
	Printer	1
	Probation Officer	2
	Psychologist	2
	Radio Announcer	1
	Social Worker	1
	Superintendent of Recreation	2
	Teacher	4
	YMCA Secretary	1
	YWCA Secretary	1

To recruit, educate and develop men and women of character for the social movements of America, who shall be willing to dedicate their lives to the service of God and humanity in recognized and approved fields of social welfare which are founded upon good citizenship, righteous living and patriotic principles; to foster and encourage self-reliance and individual initiative dedicated to the welfare of all mankind which will bring strength to the government of the United States of America and thereby aid in the promotion of its peaceful relations with the nations and peoples of the world. (5)

4. Procedures for the Analysis of the Data

The first requirement was to discover whether or not the students had changed their values, i.e., had their values increased or decreased in one or more of the areas represented by the six value scales?

It was conceivable that there might be a pattern of change. Certain patterns were projected, such as a lowering of the value placed on the social and an increase of the value placed on the economic due to the obligation of supporting a home, or an increase of the value placed on political because of the necessity of the attainment of a higher status rating. It was conjectured also that an increase of the value placed on the religious, social, theoretical, and aesthetic, and the lowering of that placed on the political and economic might result from the general, rapidly increasing emphasis on religion. These inferences were investigated by use of the "t" test, of the mean of the differences in the test-retest values placed on each of the six scales.

The second hypothesis is that the degree of dogmatism in some manner influences the change in personal values. To investigate this probability, the correlation was found between dogmatism and the change in values on each of the subscales. Also two questions were asked: (1) Do those low in dogmatism change differently from those who are high and, if so, is there a pattern of change for each group? (2) Does the median group in dogmatism change differently from those who are low and those who are high and, if so, is there a pattern of change for this group?

These concerns were investigated by means of a pattern study, with reference to scores in dogmatism, of the two extreme groups, the 25 with the lowest scores, the 25 with the highest scores, and the median group of 54.

The "W" test of Concordance² was used to determine the level of significance of the communality in the pattern of each group. The

²This test of concordance as described by Dr. M.G. Kendall in his book, Rank Correlation Methods, second edition, page 94, is used in the case where there are several rankings, say "m" in number of "n" individuals and where the desire is to investigate the general relationship between them. In a sense it measures the communality of judgments for observers. When there is agreement W equals 1. If they differ very much among themselves, the sums of ranks will be more or less equal and consequently the sum of the squares becomes small compared with the maximum value, so that W is small.

pattern of change in each of the subscales for each group was also studied by means of a "t" test of the mean of the differences in the test-retest values.

A study was made of the characteristics of each of the Low, Median and High Dogmatic Groups, using the following data: pre-graduation vocational preference and present position, certain test results, and autobiographical material.

Since nine of the fourteen of the female sample were in the Low Dogmatic Group, a comparison was made of the male and female subgroups for the purpose of determining the possibility of significant differences. No significant differences were found, as is shown by the results in the tables in Appendix VII.

CHAPTER FOUR

ANALYSIS OF THE DATA

This chapter presents a discussion of the results in the areas of changes in values, and the relationship of dogmatism to these changes. The discussion is concerned specifically with change in values, the relationship of dogmatism to the degree and character of the value changes, and the characteristics of the contrasting groups in dogmatism.

1. Changes in Values Following Graduation

The "t" test of differences was used on each of the six subscales to study the change in values. Significant changes in personal values at the five per cent level were found in the theoretical, aesthetic, and social subscales, the first two, positive, and the third, negative, as shown in Table III. The change on each of the remaining subscales, economic, political and religious was not significant.

2. The Relationship of Dogmatism to the Degree of Value Changes

To study the relationship of dogmatism to change in personal values, a Pearson correlation was calculated between dogmatism and change on each of the six value subscales. The results as summarized in Table IV, show that no significant relationship existed.

TABLE III

STATISTICAL COMPARISON OF TEST,
RETEST SCORES ON EACH OF THE VALUE SUBSCALES

N 104

Means					
Scale	Test	Retest	Diff/M	t	P
T	26.5000	28.0481	1.5481	2.418	.05
E	28.0481	27.0962	- .9519	-1.392	NS
A	21.3654	23.1250	1.7596	2.742	.05
S	32.3462	29.8654	- 2.4808	-4.148	.05
P	29.4038	29.3365	- .0673	- .104	NS
R	42.3173	42.5288	.2115	.257	NS

For $\alpha .05$ $t = 1.98$

TABLE IV

THE RELATIONSHIP OF DOGMATISM TO THE SIZE AND
DIRECTION OF THE VALUE CHANGES

The Pearson Correlation Coefficient with Significance
at the Five Per Cent Level

N 104

Scale	r	r.95	
Dogmatism			
T	.0187	.192	NS
E	- .1228	.192	NS
A	.0113	.192	NS
S	.0031	.192	NS
P	- .0061	.192	NS
R	.1001	.192	NS

3. The Relationship of Dogmatism to the Character of Value Changes

In this part of the study, two questions were asked (1) Do the Low, Median and High groups in dogmatism differ in their values? (2) Does the pattern of change differ for each group and what are its characteristics?

The total sample of 104 subjects was divided into groups, the Low group consisting of the 25 with the lowest scores in dogmatism, the High group consisting of the 25 with the highest scores in dogmatism, and a Median group of 54 consisting of the remainder with median scores in dogmatism. The range of scores for each group is included in Table V.

The investigation proceeded by finding the pattern and degree of concordance for each of the three groups on the test and retest. The median was found for each of the subscales and these were ranked. This gave the patterns shown in Table V.

On the test the pattern of ranked values from one to six was: (1) religious, (2) social, (3) political, (4) economic, (5) theoretical, and (6) aesthetic. This pattern, as is shown in Table V, was identical for all groups.

On the retest the pattern of the Low group showed change. Religious and social remained first and second. The theoretical shifted from fifth to third place, the political from third to fourth,

TABLE V

SUMMARY OF GROUP PATTERNS AND RANGE OF DOGMATISM
SCORES FOR EACH GROUP

Test 1950						
Groups	T	E	A	S	P	R
Low Dogmatic (25)	5	4	6	2	3	1
Median Dogmatic (54)	5	4	6	2	3	1
High Dogmatic (25)	5	4	6	2	3	1
Combined (104)	5	4	6	2	3	1

Retest 1956						
Groups	T	E	A	S	P	R
Low Dogmatic (25)	3	6	5	2	4	1
Median Dogmatic (54)	5	4	6	2	3	1
High Dogmatic (25)	4	3	6	5	2	1
Combined (104)	4	5	6	2	3	1

Range of Dogmatism Scores for Each Group

Groups	
Low	-74 to -32
Median	-31 to - 5
High	- 4 to 48

aesthetic from sixth to fifth, and economic from fourth to sixth. The High group has also changed its pattern. Religious remained in the first place. Political shifted from third to second; economic from fourth to third, theoretical from fifth to fourth, social from second to fifth place, and aesthetic has remained in the sixth place. The Median group has retained the previous pattern.

The "W" Test of Concordance was applied to each group to determine the degree of "communality" of the pattern of value rankings for each on the test and retest. Using this test the Combined groups has a high degree of homogeneity as indicated by the "W" Test of Concordance, but on the retest this pattern of homogeneity for the Combined group no longer exists as is shown in Table VI. Instead of one pattern there are now three, one for each group and each distinctly different from the other two. It should be observed that while the "W" test is significant for the Combined group on the test, indicating homogeneity of pattern for the group as a whole, the "W" test is not significant for the Combined group on the retest, indicating changes in value patterns.

The change in values on each of the subscales for each of the Low, Median, and High groups was studied by means of a "t" of the mean of the differences in the test, retest values, as shown in Tables VII, VIII and IX.

TABLE VI

DEGREE OF CONCORDANCE OF LOW, MEDIAN AND HIGH
DOGMATIC GROUPS ON THE TEST AND RETEST

Test 1950		
Groups	"W"	P
Low (25)	.4950	.01
Median (54)	.4232	.01
High (25)	.4831	.01
Combined (104)	.4813	.01

Retest 1956		
Groups	"W"	P
Low (25)	.3850	.01
Median (54)	.3565	.01
High (25)	.3543	.01
Combined (104)	.0293	NS.

TABLE VII

STATISTICAL COMPARISON OF TEST, RETEST SCORES ON EACH
OF THE VALUE SUBSCALES FOR THE LOW DOGMATIC GROUP

N 25

Scale	Means		Diff/M	t	P
	Test	Retest			
T	25.44	29.44	4.00	3.0292	.05
E	27.04	23.44	-3.60	2.2971	.05
A	21.56	23.92	2.36	1.8677	NS
S	32.48	30.92	-1.56	-1.1934	NS
P	29.08	27.79	-1.29	-0.5126	NS
R	44.08	44.36	.28	0.3073	NS

For $\alpha = .05$ $t = 2.06$

TABLE VIII

STATISTICAL COMPARISON OF TEST, RETEST SCORES ON EACH
OF THE VALUE SUBSCALES FOR THE MEDIAN DOGMATIC GROUP

N 54

Scale	Means		Diff/M	t	P
	Test	Retest			
T	25.98	27.63	1.65	.8487	NS
E	28.72	27.85	- .87	- .2077	NS
A	21.70	23.59	1.89	1.1195	NS
S	31.55	30.63	- .92	-1.0723	NS
P	29.07	29.09	.02	.2881	NS
R	42.67	42.72	.05	.1829	NS

For $\alpha .05$ $t = 2.06$

TABLE IX

STATISTICAL COMPARISON OF TEST, RETEST SCORES ON EACH
OF THE VALUE SUBSCALES FOR THE HIGH DOGMATIC GROUP

N 25

Scale	Means		Diff/M	t	P
	Test	Retest			
T	27.72	28.56	.84	.5822	NS
E	28.96	29.12	.16	.0629	NS
A	20.52	22.32	1.80	1.2493	NS
S	33.16	28.44	-4.72	-4.5293	.05
P	30.44	30.88	.44	0.1543	NS
R	39.12	41.08	1.88	1.0767	NS

For $\alpha = .05$ $T = 2.06$

A comparison of the ranking order of each pattern as in Table V, and the results of the "t" test, indicate that when the ranking given a value decreased between test and retest, the "t" was negative, and when the ranking given a value increased, the "t" was positive. As is shown in Table VII, a change of two or more in the ranking order, was shown to be a significant change at the one per cent level. The existence of the same relationships for the High group is shown in Table IX. Tables V and VIII provide a comparison of the results of the ranking order and "t" test of values for the Median group, and confirms the conclusion that this group did not change in any value to a significant degree.

4. A Comparison of the Characteristics of the Low, Median and High Groups Using Test Results and Autobiographical Material

The students had completed a battery of tests and a comprehensive Record form, Appendix VI, in 1949-50. Several interviews were held with each student, at which time the events affecting his entry into the program of Human Relations, the results of the testing program, and his future plans were discussed. This was regularly required procedure for the purpose of assisting the student to understand himself, to reaffirm his desire to continue toward his vocational goal or decide upon another. A summary of the testing and interviews was written, read by the student and discussed. A copy was then sent to the American Humanics Foundation, which was

sponsoring the program. The purpose of this counseling program was to improve the quality of students entering the vocation, and to assist the student in making the best possible vocational choice.

Using the results of counseling program, each of the three groups, the Low and High groups, which as we have seen changed to different patterns, and the Median group, which did not change significantly, are studied in an attempt to identify, describe, and quantify some factors influential in their development.

The students who entered the program of Human Relations were oriented toward the vocation of professional scouting through the influence of seminars and field trips. Of the one hundred and four, thirty-seven entered this profession. Thirty of the 54 in the Median group retained their professional choice and are still employed in the Boy Scout profession. In contrast, two of the 25 in the Low group retained their vocational choice, whereas 5 of the High group retained their choice. These data are summarized in Table X, which shows also that the groups can be considered significantly different since the Chi Square values indicate that the hypothesis of independence can be rejected at the one per cent level.

On the whole, the Median group tended to be rigid whereas the Low and High changed their vocational preference. A comparison of the shift in value patterns from test to retest with the present positions of the members of each group, as shown in Tables V and XI, suggests

TABLE X

RETENTION AND CHANGE OF VOCATIONAL CHOICE
FOLLOWING GRADUATION

Totals for Each Group in Each Area and the
Chi Square Test of Independence

N 104

Groups	*A	*B
Low (25)	2	23
Median (54)	30	24
High (25)	<u>5</u>	<u>20</u>
Total	<u>37</u>	<u>67</u>

Chi Square = 20.3455¹

*A - These retained their college decision to enter the Boy Scout profession and remained in it, as of 1956.

*B - These did not enter the Boy Scout profession, but entered another profession, and remained in it, as of 1956. See Table II for the list of other occupations entered.

¹Significant at the .01 level of Significance.

TABLE XI

PRESENT POSITIONS (1956) OF LOW, MEDIAN AND HIGH
DOGMATIC GROUPS

The Number in Each Position
in each Group

N 104

<u>Low</u>		<u>Median</u>		<u>High</u>	
Boy Scout Executive	2	Boy Scout Executive	30	Boy Scout Executive	5
Housewife	8	Interviewing	3	Army (professional)	5
Occupational Therapy	1	Secretary	2	Banking	3
Medicine	1	Dir. Cmty. Services	2	Air Force (prof.)	2
Minister	8	Ex. Salvation Army	1	Managerial, Business	3
Printer	1	Radio Announcer	1	Navy (professional)	2
Psychologist	1	Supt. of Recreation	2	Engineer	2
Social Worker	1	Teacher	2	Probation Officer	2
Teacher	2	YMCA Secretary	1	Printer	1
		YWCA Secretary	1		
		Boys' Counselor	1		
		Clerical	4		
		Salesmen	4		
	-		-		-
	25		54		25

a relationship between the present value pattern, degree of dominance, and the present position. The Low group whose members ranked the religious, social, and theoretical values, first, second and third, and who are least dominant, as shown in Table XV, are engaged in occupations with a greater social service emphasis, and which require less dominance for their execution. The Median group whose members ranked the religious, social, and political values, first, second, and third and who are quite dominant are in general engaged in occupations which to some degree emphasize social service, but which require more dominance for their execution. The High group, whose members ranked the religious, political, and economic as first, second, and third, and who were more dominant than the Low group are engaged in occupations which confer greater status, offer more opportunity for regular promotion, and require a certain degree of dominance.

The differences in vocational preference of the three groups were further studied by the use of the Kuder Preference Record and the Strong Vocational Interest Blank. On the Kuder Preference, the Low group had a wide range of vocational choice, the High somewhat constricted, and the Median quite constricted with only four areas chosen. Social Service was most frequently chosen by both the Median and High groups. The Chi Square value as shown in Table XII supports the conclusion that the groups are significantly different.

TABLE XII

COMPARISON OF LOW, MEDIAN AND HIGH LOGMATIC GROUPS
ON THE VOCATIONAL PREFERENCE AREAS OF THE
KUDER PREFERENCE CH AT THE 75%ILE LEVEL AND ABOVE

Number of responses for each Group in each area,
and the Chi Square Test of Independence

N 104

Groups		Areas									
		1	2	3	4	5	6	7	8	9	10
Low	(25)	7	10	4	10	3	12	6	9	6	1
Median	(54)					23		9		56	9
High	(25)	4	6		4	10	6	4		18	4
Chi Square = 78.881											

¹Significant at the .01 level of Significance

Areas

1. Outdoor
 2. Mechanical
 3. Computational
 4. Scientific
 5. Persuasive
 6. Artistic
 7. Literary
 8. Musical
 9. Social Service
 10. Clerical
-

The results of the Strong Vocational Interest Blank, which indicated the latent interests of the student, suggest an entirely different situation. That the groups are different in this area also is shown by the means in Table XIII; the Median had many more choices per capita than the Low, 5.57 as compared to 2.32, and more also than the High, 4.32. Not only this, but the vocational interests with "A" ratings for the Median group showed much more variety. Each of the 27 vocations was the choice of one or more, whereas only 14 vocations received one or more choices by those of the Low group. Apparently the Median and High groups had many more interests than the number indicated by their choices on the Kuder. This contrast becomes even more significant when it is considered that the Kuder is much more susceptible to distortion than the Strong. (29)

The relationship between degree of dogmatism and intelligence was studied by use of the Otis Intelligence Test Form A. It was hypothesized that the Median group, which did not change significantly its pattern of values, differed from the Low and High groups with relation to its ability to reason, to envisage and appraise alternatives. The groups, however, were not found to be significantly different in this capacity, although the mean intelligence quotient for the Median group was slightly lower, as shown in Table XIV. This result agrees with the

TABLE XIII

GROUP COMPARISONS OF STUDENTS WHO RECEIVED "A" RATINGS AND THE
TITLE OF THEIR VOCATIONAL CHOICES (1950) ON THE STRONG VOCATIONAL
INTEREST BLANK FOR THE LOW, MEDIAN AND HIGH DOGMATIC GROUPS

Total Number of Group Choices for Each Occup-
ation, Group Totals and Group Means

N 104

<u>Vocational Choice</u>	<u>Low</u>	<u>Median</u>	<u>High</u>
YMCA Secretary	9	17	10
YMCA Phys. Dir.	0	16	6
Sales Manager	4	12	4
Production Manager	3	14	5
Personnel Manager	3	15	6
Public Administration	0	8	2
Real Estate Salesman	6	6	2
Life Insurance Salesman	1	15	4
Advertising Man	0	8	2
Math.-Science Teacher	9	15	5
Social-Science Teacher	6	27	11
Senior C.P.A.	0	8	2
Accountant	0	6	3
Office Worker	4	5	2
Lawyer	3	2	2
Physician	0	6	1
Osteopath	0	10	4
Engineer	0	7	2
Politician	0	6	2
Artist	0	8	3
Architect	0	6	2
Musician	3	12	4
Printer	3	18	2
Farmer	0	9	3
Aviator	4	14	6
Policeman	0	16	7
Mortician	0	15	6
Total	58	301	108
Mean	2.32	5.57	4.32

TABLE XIV

A GROUP COMPARISON OF THE INTELLIGENCE QUOTIENTS
FOR THE LOW, MEDIAN AND HIGH DOGMATIC GROUPS
ON THE OTIS TEST OF INTELLIGENCE, FORM A

Range of Scores, Means, F ratio and Probability

N 104

		Range of Scores	Mean	F ratio	F _{.95}	P
Low	(25)	105 - 133	117.5	.66	3.10	NS
Median	(54)	98 - 134	113.8			
High	(25)	104 - 134	118.2			

findings of Rokeach, McGovney, and Denny (25) and Vidulich (32) who found no significant relationship between dogmatism and intelligence.

The results of the A-S Reaction Study were used to compare the degree of dominance of the three groups. The groups were significantly different at the one per cent level, as shown in Table XV. The Median group was quite dominant, having a mean score of 20.27. The low group was submissive, having a mean score of -4.36.¹ It is possible that the Median group may have developed a high degree of dominance as a protection against the threat of change.

The character of the early family and community relationships of the groups were studied through the replies given to questions asked in the Comprehensive Record, as given in Appendix VI, and stated in Tables XVI to XXII inclusive. In Tables XVI to XIX are given a summary of the data on replies to questions: "What sort of person was your Father?" and "What sort of person was your Mother?" The replies ranged from those which were clearly ambivalent to those which clearly glorified the parent.² The parents of those in the Median group are described by one or more adjectives, all of which

¹The mean score of the A-S Reaction Study as given in the Manual of Directions, p. 13 is -0.3.

²The judging was done by two doctoral candidates, using the following process. First, there was a discussion of possible descriptions. Then the classifications of ambivalent to glorification given to these oral descriptions, no mention was made of dogmatism. The judges worked independently.

TABLE XV

A COMPARISON OF THE LOW, MEDIAN AND HIGH DOGMATIC
GROUPS ON THE A-S REACTION STUDY

Range of Scores, Mean, F ratio and Probability

N 104

		Range of Scores	Mean	F ratio	F _{.99}	P
Low	(25)	- 32 to 35	- 4.36	41.3	5.62	S
Median	(54)	2 to 39	20.27			
High	(25)	1 to 18	6.72			

TABLE XVI

A COMPARISON OF THE LOW MEDIAN AND HIGH DOGMATIC GROUPS
ON THE REPLIES GIVEN TO THE QUESTION "WHAT
SORT OF PERSON IS (OR WAS) YOUR FATHER?"

No of responses for Each Group in each Area
and the Chi Square Test of Independence

N 104

	*1	2	3
Low (25)	16	6	3
Median (54)	4	12	38
High (25)	3	15	7

Chi Square = 49.55¹

* Replies are classified in three categories

1. Ambivalence toward parent
2. Some degree of ambivalence
3. Glorification of parent

¹ Significant at the .01 level of significance.

TABLE XVII

REPRESENTATIVE REPLIES TO THE QUESTION: "WHAT SORT
OF PERSON IS (OR WAS) YOUR FATHER?"

Area One

Ambivalence

Stubborn, quick-tempered but at times good natured, and just a nice guy.

A quiet person who has done for me what I wanted if he thought it was O.K., however he has never been a pal to whom I could take my troubles. We had a lot of fun though, and heed each other's advice.

Area Two

Partial Ambivalence

A pretty good dad most of the time, but comes down hard on things that count, which may be good.

Very strict at times but on the whole not too hard to get along with, and understanding at all times.

Area Three

Glorification

A very fine person who tries to uphold the christian virtues of life. Friendly, intelligent, frank, generous, likes to spend time with his family and do things for us.

TABLE XVIII

COMPARISON OF LOW, MEDIAN AND HIGH DOGMATIC GROUPS
ON THE REPLIES GIVEN TO THE QUESTION, "WHAT
SORT OF PERSON IS (OR WAS) YOUR MOTHER?"

No. of Responses for Each Group in Each
Area, and the Chi Square Test of Independence

N 104

Group	*1	2	3
Low (25)	17	5	3
Median (54)	4	10	40
High (25)	3	14	8

Chi Square = 41.14¹

* Replies are classified in three categories

1. Ambivalence toward parent
2. Some degree of ambivalence
3. Glorification of parent

¹ Significant at the .01 level of significance.

TABLE XIX

REPRESENTATIVE REPLIES TO THE QUESTION: "WHAT SORT
OF PERSON IS (OR WAS YOUR MOTHER)?"

Area One

Ambivalence

Some of the time she was a reserved autocrat in the home; other times she was different, and more likeable, almost loveable.

Was good to me over minor things, but didn't handle the hard things too well. She had her good and bad points.

Area Two

Partial Ambivalence

Made you toe the mark, but when you were in trouble, she was real understanding. You could count on her being fair.

She gave you the feeling you could do things. Sometimes she was hard on you when you didn't quite make the grade, but most times she was encouraging and kind.

Area Three

Glorification

The best, no limit in any way.

Very wonderful and understanding, kindhearted toward her children.

Unselfish, loving, tireless.

are to some degree positive . There is little which could be considered negative in these descriptions. Expressions of ambivalence are minimal. In contrast, those in the Low group described their parents quite differently. Each had something good to say and in general there was a balance between praise and criticism and a considerable expression of ambivalence.

Members of the High group idealize their parents. Their descriptions expressed a certain detachment and used undifferentiated and conventionalized phrases. The replies given by the Low group appeared to be much more natural and spontaneous. The descriptions of the parents closely resembled those given by the subjects studied by Else Frenkel-Brunswik. (11) The High resemble the "high" prejudiced group which she studied, and the Low resemble the "low".

Further insights concerning the possibility of the contrast in the parent-child relationships of the groups are provided by the data in Tables XX and XXI. Members of the Median and High groups were less able to adjust normally to the psychological climate in their homes than were those of the Low group. The number of overt maladjustment symptoms of the Median and High greatly exceed that of the Low. As defined by Arlitt (7) and Wooley (36) 96 per cent of these could be considered enuresis cases. The Low group is in strong contrast. Less than one per cent had overt maladjustment symptoms. The groups were significantly different at the one

TABLE XX

COMPARISON OF THE LOW, MEDIAN AND HIGH DOGMATIC GROUPS
ON THE AFFIRMATIVE REPLIES TO THE QUESTIONS LISTED

Total and Mean for Each Group and the Chi Square Test of
Independence

N 104

Questions	Low	Median	High
Did you ever suck your thumb?	6	21	5
Bite nails?	2	27	16
Have temper tantrums?	1	14	14
Have nightmares?	1	20	10
Walk in your sleep?		14	9
Stammer?			
Talk in your sleep?		28	8
Total	10	124	62
Mean	.4	4.9	2.5
Chi Square = 53.14 ¹			

¹ Significant at the .01 level of significance.

TABLE XXI

COMPARISON OF LOW, MEDIAN AND HIGH DOGMATIC GROUPS
ON THE REPLIES TO THE QUESTION, "AT WHAT AGE
APPROXIMATELY DID YOU STOP WETTING THE BED "?

Total for Each Group at Each Age Level, and the Mean Age for Each Group.

N 104

Age	Low (25)	Median (54)	High (25)
* X	21	0	0
3	3	2	2
4	1	3	7
5		3	3
6		5	2
7		6	1
8		7	4
9		8	6
10		7	
11		6	
12		4	
13		2	
14		1	
Mean	2.8	8.5	6.2

*X - "I don't remember."

assumed as 2 years for purpose of establishing mean age.

per cent level in this respect.

Eneuresis in the Low group was forgotten by practically all, in the Median and High groups it was remembered and persisted as a problem beyond the age that is considered normal. (36)

The results of Table XXII provide information concerning the difference of the groups in their community relationships. The majority of the members of the Median and High groups specified one or a few people, outside their homes, as influential in their development. A Boy Scout Executive was frequently mentioned. The responses of the Low group varied considerably from those of the Median and High. The majority of the members of this group considered a number of people as influential in their development but without specifying any individual more than another. The Chi Square results indicated that the groups were significantly different.

The members of the Median group who apparently had identified with one or a few persons retained their vocational choice throughout college and entered this vocation upon graduation.

TABLE XXII

COMPARISON OF LOW, MEDIAN, AND HIGH DOGMATIC GROUPS
ON THE REPLIES TO THE QUESTION, "WHAT OTHER PEOPLE
(RELATIVES, GUARDIANS, FRIENDS, ETC.)
INFLUENCED YOUR DEVELOPMENT?"

Total Number of responses for Each Group in Each
Area and the Chi Square Test of Independ-
ence

N 104

Groups		*A	B	C
Low	(25)	2	5	18
Median	(54)	38	10	6
High	(25)	15	8	2

Chi Square = 43.50¹

- *A - Specification of a certain one, or a few persons.
- B - A Number of people mentioned, no emphasis on any.
- C - A general response, no reference to any one, or any group.

¹ Significant at the .01 level of significance.

CHAPTER FIVE

FINDINGS, CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The study has been concerned with the following questions: (1) Do the personal values of students change following graduation from college? (2) Is dogmatism an influential factor in the change of personal values? (3) Does the degree of dogmatism affect the change in the pattern of values? (4) Do the characteristics of the subjects vary according to their degree of dogmatism?

One hundred and four graduates of Missouri Valley College, participated in the study. Prior to graduation in 1950, each had several counseling interviews, completed the Comprehensive Record Questionnaire and a battery of tests, including the Kuder Vocational Preference Record, Form CH, the Strong Vocational Interest Blank, the Otis Test of Intelligence, Form A, the A-S Reaction Study, and A Study of Values. In the spring of 1956 each again took A Study of Values, and The Dogmatism Scale, Form E.

Findings

1. There were significant changes in personal values on three of the subscales, theoretical, aesthetic, and social; the first two positive, and the third negative. The change on the economic, political and religious was not significant.

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2. The relationship between dogmatism and change on each of the value subscales was not significant.
3. The group pattern of change varied according to the degree of dogmatism. Although each of the groups had the same pattern of values in 1950, which according to rank were: religious, social, political, economic, theoretical and aesthetic, the pattern of values of the Low group in 1956 was: religious, social, theoretical, political, aesthetic and economic; and the pattern of the High was: religious, political, economic, theoretical, social, and aesthetic. The Median group retained its pattern of 1950.
4. The characteristics of the Low group differed from those of the High group. The characteristics of the Low were:
 - (i) They expressed ambivalent feelings toward their parents; few showed any tendency to glorify or idealize them.
 - (ii) They reported few childhood maladjustive symptoms.
 - (iii) They did not recall any person or group as being influential in their development.
 - (iv) They were slightly submissive.
 - (v) They did not differ significantly in intelligence from the High group.
 - (vi) They indicated a large number of similar vocational interests on the Kuder Vocational Preference Record and the Strong Vocational Interest Blank.
 - (vii) They used the counseling interviews and test results for the purpose of understanding themselves and deciding on a vocation.

(viii) They entered many different vocations.

The characteristics of the high group were:

- (i) They glorified and idealized their parents. Expressions of ambivalence were rare.
- (ii) They reported a large number of childhood maladjustive symptoms, many of a serious nature.
- (iii) They mentioned one person or several who had been influential in their development.
- (iv) All were above average in dominance.
- (v) The mean intelligence quotients of the high group were not significantly different from that of the Low.
- (vi) They indicated few interests on the Kuder Vocational Preference Record; social service being the most frequent, but a large number of interests in several areas were indicated on the Strong Vocational Interest Blank.
- (vii) They used the counseling interviews and test results to confirm their previous decisions.
- (viii) The majority entered the vocation which they had chosen in their teens.

Conclusions

1. Changes in Values Following Graduation

The graduate changes his values. Graduates were found to decrease the value placed on the theoretical and aesthetic and to increase the value placed on the social. Other values, economic, political, and religious did not change significantly.

2.

18

5

10

2

1

1

1

1

2. Change is Complex

The process of change has been considered to be a simple unified variable. A reconsideration may be necessary. The results of this study indicate that there are at least two kinds of movement which have been called change. The outcome of the integration of new meanings, understood, accepted, and acted upon, or the decision to behave in a certain manner in order to accomplish certain results. It should be noted that what has been termed change may be the outcome of either of these processes.

3. Dogmatism Affects the Character of Change in Values

The degree of dogmatism is influential in determining the possibility of a change in the pattern of values, and the characteristics of the pattern. Those with a moderate degree of dogmatism apparently do not change their pattern of values. Those low in dogmatism change to a different pattern of values than those who are high. It is not known exactly what this indicates. Since the groups differ so greatly, the motivation toward change might be expected to vary.

4. Dogmatism and Self-Actualization

The results emphasize the function of the basic motive of self-actualization in the alteration of value patterns. The behavior of each group is an endeavor toward self-enhancement. The group which evidenced the least degree of change endeavored to satisfy the

need for safety, belonging and recognition, through repression, identification and conformity. The group which evidenced the most change satisfied the need for self-understanding and independence through self-acceptance, free decision, and experimentation.

These attempts at self-actualization resulted in different outcomes. The members of the Median and High groups, in their concern to conform, attempted to actualize themselves through identification with authority figures. By so doing they seriously decreased their opportunities for growth. It can be reasonably assumed that the individual in the Low group was permitted more freedom, was enabled to understand his real feelings, to interact with others, and to change his self concept and reset his level of aspiration.

The contrasting attempts at self-enhancement result in two very different types of individuals, those who rely heavily on conformity, and those who assert their capacities and freedom in their evaluations of cultural forces.

It becomes increasingly clear that the highly dogmatic individual is less likely to live the more creative individualized life of the one less hampered by the effects of dogmatism.

5. Dogmatism is Pervasive

On the Kuder Preference Record the Median and High groups gave Social Service as their chief and frequently as their only vocational interest. Since it was recognized that this was the expected

vocational interest of those enrolled in the Program of the American Humanics Foundation, it may be considered an attempt to conform, rather than to permit themselves the opportunity of decision and the expression of their own interests. This evidence is augmented by the results of the Strong.

The Strong Vocational Interest Blank showed that the same groups had a wide range of interests. Since the Strong is less susceptible to distortion than the Kuder, it may be concluded that the choices on the Strong more closely represented their true interests.

A second indication of the pervasiveness of dogmatism is its influence on the individual's adjustment to reality. Although, the students were informed that the Foundation expected a considerable number to leave the Program for another major and that one purpose of the tests was to aid them in the selection of a major, many of those in the Median and High groups were unable to utilize these opportunities for the purpose of discovering their own vocational interests and abilities. When confronted with the results which indicated the necessity of consideration of other alternatives, they ignored them. More than half of these maintained their decision and entered the Boy Scout Movement, although for many, other vocations were indicated.

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The third indication of its pervasiveness is its effect on the degree of dominance expressed by individuals. The Median and High were aggressive and/or dominating in their interpersonal relationships. In accordance with the findings of authorities it may be concluded, that having been dominated as children, they now felt it necessary to dominate others. This action may also be interpreted as a defense mechanism against threat, especially in those areas in which were held distorted percepts.

The fourth indication is that dogmatism influences the thinking of the individual, regardless of his mental ability. Those of superior ability may be as dogmatic as those of lesser intelligence. This is disturbing, since increased ability to reason and greater knowledge may not be depended upon to necessarily lessen the degree of dogmatic thinking.

6. Dogmatism Develops Early

The indications are that dogmatism develops in the child, as part of the personality structure. The evidence suggested that there was a decided contrast in the early experiences of the Low, and the Median or High groups. This was focused in their contrasting descriptions of the parents. Already there are seen both realistic and distorted views of reality, the feeling of acceptance and the feeling of confusion or rejection. Some of the effect of this conflict and concern was evidenced by the contrast in the number and

1870

1871

1872

1873

1874

1875

1876

1877

1878

1879

1880

1881

1882

1883

1884

seriousness of the maladjustive symptoms of the groups.

It is reasonable to conclude that at an early age one group is "free to become," as Allport describes it, while the other must develop some means of adjustment to conditions which have often proved unpredictable, threatening and devoid of acceptance.

7. Dogmatism and Counseling

Those who were low in dogmatism made the best use of the counseling interviews. They were more willing and interested in studying the test results. They showed greater facility in considering alternatives. They were more interested in learning of the vocation for which they might be best suited, and more able to believe that the Foundation was interested in their personal welfare.

Those in the Median and High groups approached the counseling interviews with a different mind set. They had already chosen their specific vocation, and hoped that the test results would support their decision. Thus they ignored, or later discarded information or insights that they had gained which did not conform with their previous decision. When confronted with results which suggested to them that they should rethink, and perhaps alter their previous plans, they referred to the probable opinion, with regard to change, of an authority figure, a parent, boy scout executive and/or the Foundation. Each found it extremely difficult to evaluate independently.

To maintain this mind set it seemed necessary to assume a dominant role in their interpersonal relationships. This dominance appeared to function as a defense mechanism against threat.

The results point to the conclusion that the presence of dogmatism minimizes the probability of benefitting from counseling.

The Strong Vocational Interest Blank is to be preferred for use with those who are median or high in dogmatism for the purpose of discovering vocational interests.

It is reasonable to expect that those who are median or high in dogmatism would receive most benefit from a permissive counseling relationship.

The use of The Dogmatism Scale might possibly prove an effective means of determining those who would receive most benefit from a permissive counseling relationship.

Suggestions for Further Research

1. Longitudinal studies of the dynamic, interpersonal relationships in intimate groups could be expected to improve the knowledge of factors influential in change of personal values.
2. Studies of the change in pattern of values of those with relatively extreme degrees of dogmatism would increase understanding.
3. The effects of dogmatism on perception and performance warrant increasing study.
4. The study of amount of change in values over varying experiences and intervals of time should be supplemented by studies of change in patterns of values.

1. 1

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10. 10

BIBLIOGRAPHY

1. Adorno, T.W., Frenkel-Brunswik, Else, Levinson, Daniel J., and Sanford, R. Nevitt. The Authoritarian Personality. New York: Harper & Bros., 1950, 350-389.
2. Allport, Gordon W., and Vernon, Philip E. A Study of Values, Manual of Directions. New York: Houghton Mifflin Co., 1931, 7.
3. Allport, Gordon W., and Vernon, Philip E., and Lindzey, Gardner. A Study of Values. A Scale of Measuring the Dominant Interests in Personality, Manual of Directions. New York: Houghton Mifflin Co., 1954, 6.
4. Allport, Gordon W., and Allport, Floyd H. The Reaction Study, A Scale for Measuring Ascendancy - Submission in Personality, Manual of Directions, Scoring Values and Norms, Second Revised Edition. New York: Houghton Mifflin Co., 1954, 13.
5. American Humanics Foundation. The Doings. Marshall, Missouri: Missouri Valley College, 1950.
6. Arlitt, Ada H. Psychology of Infancy and Early Childhood. New York: McGraw-Hill Book Co., 1928, 199.
7. Arlitt, Ada H. Psychology of Infancy and Early Childhood. New York: McGraw-Hill Book Co., 1946, 443.
8. Arsenian, S. "Changes in Evaluative Attitudes During Four Years of College." Journal of Applied Psychology. 1943, 27, 338-339.
9. Cantril, E., and Allport, G.W. "Recent Applications of the Study of Values." Journal of Abnormal and Social Psychology. 1953, 28, 259-273.
10. Dixon, W.T., and Massey, F.J. Introduction to Statistical Analysis. New York: McGraw-Hill Book Co., 1951, 307.
11. Frenkel-Brunswik, Else. "Intolerance of Ambiguity as an Emotional Perceptual Personality Variable." Journal of Personality 1949, 18, 108-143.
12. Fromm, Erich. Man For Himself. New York: Farrar and Rinehart, 1947.

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13. Harris, D. "Group Differences in Values Within A University." Psychological Bulletin, 1933, 30, 555-556.
14. Hartmen, Robert S. "Role of the Value Consultant." The Tech. February 17, 1956, 2.
15. Kelly, Lowell E. "Consistency of the Adult Personality." The American Psychologist, 1955, 10, 659-681.
16. Lurie, W.A. "A Study of Spranger's Value Types by the Method of Factor Analysis." Journal of Social Psychology, 1940, 11, 275-302.
17. Maslow, A.H. Motivation and Personality. New York: Harper & Bros., 1954.
18. Orwig, James P. "An Examination of Problems Relating to Standards of Value Judgment as Expressed by a Selected Group of Basic College Students." Unpublished Doctoral Thesis, Michigan State College, 1953.
19. Orwell, G. 1984. New York: New American Library, 1951.
20. Pintner, R. "A Comparison of Interests, Abilities and Attitudes." Journal of Abnormal and Social Psychology, 1933, 27, 351-357.
21. Postman L., Bruner, J., and McGinnis E. "Personal Values as Selective Factors in Perception." Journal of Abnormal and Social Psychology, 1948, 43, 142-154.
22. Rokeach, Milton. "On the Unity of Thought and Belief." Journal of Personality. Vol. 25, No. 2, 1956.
23. _____. "The Nature and Meaning of Dogmatism," Psychological Review, Vol. 61. No. 3, 1954, 202.
24. _____. "Political and Religious Dogmatism; An Alternative to the Authoritarian Personality." Psychological Monographs: General and Applied, Vol. 70, No. 18.
25. Rokeach, M., McGovney, W.C., and Denny, M.R. "A Distinction Between Dogmatism and Rigid Thinking." Journal of Abnormal and Social Psychology, 1955, 51, 87-93.

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26. Solomon, Marvin D. The Personality Factor of Rigidity as an Element in the Teaching of the Scientific Method. Unpublished Doctoral Thesis. Michigan State College, 1953.
27. Stone, C.L. "The Personality Factor in Vocational Guidance." Journal of Abnormal and Social Psychology. 1933, 28, 274-275.
28. Sullivan, P.L. and Adelson, J. "Ethnocentrism and Misanthropy." Journal of Abnormal and Social Psychology. 1953, 246-250.
29. Super, Donald E. Appraising Vocational Fitness. New York: Harpers & Bros., 1949, 446.
30. Todd, J.E. Social Norms and the Behavior of College Students. New York: Teachers College Bureau of Publications, 1941.
31. Vernon, P.E., and Allport, B.W. "A Test for Personal Values." Journal of Abnormal and Social Psychology. 1932, 26, 231-248.
32. Vidulich, R. The Integration of Multiple Sets into a New Belief System. M.A. Thesis. Michigan State University Library, 1956.
33. Whiteley, Paul E. "The Constancy of Personal Values." Journal of Abnormal and Social Psychology. 1936, 33, 405-408.
34. Wickert, P. "The Interrelationships of Some General and Specific Preferences." Journal of Social Psychology. 1937, 6, 12-37.
35. Wolff, Werner. Personality Symposia on Typical Issues. Symposium No. 1, Values in Personality Research. New York: Grune and Stratton, 1930.
36. Wooley, Helen T. "Enuresis as a Psychological Problem." Mental Hygiene. Vol. X, 1926, 38-53.

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A STUDY OF VALUES

A SCALE FOR MEASURING THE DOMINANT INTERESTS IN
PERSONALITY

Manual of Directions

REVISED EDITION

BY

GORDON W. ALLPORT

AND

PHILIP E. VERNON



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BOSTON • NEW YORK • CHICAGO • DALLAS • ATLANTA • SAN FRANCISCO

The Riverside Press Cambridge

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The Riverside Press

CAMBRIDGE · MASSACHUSETTS

PRINTED IN THE U.S.A.

A STUDY OF VALUES¹

PURPOSE

THIS study aims to measure the relative prominence of six basic interests or motives in personality: the *theoretical*, *economic*, *aesthetic*, *social*, *political*, and *religious*. The classification is based directly upon Eduard Spranger's *Types of Men*,² a brilliant work which defends the view that the personalities of men are best known through a study of their values or evaluative attitudes. Since it is undesirable for those who take the test to know too much about its theoretical basis beforehand, any mention or discussion of these six values should be deferred until the test has been taken.

The scale consists of a number of questions, based upon a variety of familiar situations to which two alternative answers (in Part I) and four alternative answers (in Part II) are provided. In all there are 120 answers, 20 of which refer to each of the six values. The subject records his preferences numerically by the side of each alternative answer. His scores are then transcribed onto a separate sheet, and the twenty scores belonging to each of the six values are summed. After applying certain simple corrections these six total scores are plotted on a profile, so that the subject may see the significance of his standing on all the values simultaneously.

INSTRUCTIONS FOR GIVING

1. *The Study of Values is self-administering.* In general no verbal instructions are required, though the examiner may find it desirable to read aloud, and if necessary further explain, the directions to Part I; and to tell the subjects that as soon as they have completed Part I they should continue with Part II.

2. *There is no time limit.* Most subjects require about 20 minutes to complete the entire test. Although they should not be stopped

¹ A more complete description of the theoretical basis and the construction of the scale may be found in "A Test for Personal Values," by P. E. Vernon and G. W. Allport, *Journal of Abnormal and Social Psychology*, 1931, XXVI, 3.

² Translated from 5th German edition of *Lebensformen*, 1928. American agent, G. E. Stechert.

before finishing, they should be discouraged from spending too long a time over the questions.

3. *The test may be taken in a group or individually.* If taken alone, it is desirable to caution the subject against answering it in collaboration with others, or against spending too much time on it.

4. *There should be no explanation of the purpose or construction of the test before it is taken.* Bias of one sort or another is likely to affect the scores of those who are familiar with the significance of the questions. For this same reason, the score sheets should not be given to the subjects until they have finished taking the test.

5. *Omissions are permissible but undesirable.* Guesses are frequently as significant as more deliberate choices; and omissions make the scoring slightly more complex.

6. *Certain groups, not familiar with psychological tests, need assurance and encouragement.* If the examiner detects an air of suspicion or opposition among the subjects, it should be explained that the Study of Values is not a disguised scale for measuring intelligence, good breeding, or moral knowledge. The subject must be given to understand that the results can in no way detract from his standing. Experience has shown that, with a little encouragement, even groups that are unused to psychological tests develop keen interest, especially if they are to be informed of their scores.

INSTRUCTIONS FOR SCORING

The test is self-scoring. Both taking and scoring can be completed within one hour. An experienced examiner, if he chooses, may score the papers himself; the entire process for a single paper should take him eight minutes or less.

Unlike most tests of personality, the present scale aims to measure more than a single variable. A few subjects may find it slightly perplexing to treat the six values in the score sheet all at one time. For this reason it is necessary for the examiner to study the method of scoring in advance. He should explain each step, following closely the directions given on the score sheet, and should be prepared to give further explanations, if called for, regarding the following points.

1. *Treatment of omitted questions.* Since the sum of the six final

scores for every subject must be the same, it is necessary that all omitted answers be treated in the manner explained on the score sheet. It is also essential that the sum of the marks for the two answers to any question in Part I equal 3, and the sum of the marks (ranks) for the four answers to any question in Part II equal 10.

2. *The order of transcriptions.* It is desirable to warn the scorers that the marks which they have given to the first (a) answers in Part I are *not always to be transcribed into the left-hand box* on Page 2 of the score sheet. In questions 4, 6, 7, etc., the (a) box is on the *right*. The same principle applies in Part II.

3. *Verification of transcriptions and additions.* The scorer should check the accuracy of his transcriptions and additions by verifying at each stage the sum of his marks according to the figures given in the margins of the score sheet.

4. *The totals for Part II are to be subtracted from the correction figures at the bottom of the third page of the score sheet.*¹ In order to assist the accuracy of his subtractions, the scorer may write these totals again *under* the correction figures.

5. *Drawing the profile.* The six total scores should be plotted as crosses or dots on the *vertical* lines on the back page of the score sheet. The six crosses or dots may then be joined by ruling five short diagonal lines.

6. *The test has been constructed in such a way that 30 is the average score for any single value.* A few subjects obtain profiles that are nearly flat, indicating, of course, that by this test, their attitudes are equally favorable to all six values. Only the larger peaks or depressions in the profiles are likely to be significant, as shown by the norms printed at the bottom of the final page of the score sheet. These norms are based on about 4800 final scores from 800 college students and adults of both sexes. Though the distribution of scores for the

¹ The object of these correction figures is two-fold. In Part I the highest value receives the highest scores; but in Part II, the highest value is given the lowest scores (ranks). The range of total scores in Part I is from 30 to 0, in Part II from 10 to 40. Hence the subtraction of each total in Part II from 40 effects the necessary inversion.

Secondly, it was found that the *theoretical* and *social* values were slightly more attractive than the others in the standardization groups, and a small correction for the unequal popularity of the answers under the six value-headings has been included at this stage for the sake of convenience. The raw *theoretical* total for each individual is therefore subtracted from 39 instead of from 40, the *economic* total (this value being less attractive) is subtracted from 41, etc.

different values varies slightly, a score which is greater than 37 or less than 24 for any one value is probably significant, since it falls within the extreme quintiles.

7. *The test measures only the relative strength of the six evaluative attitudes.* A high score in one value can be obtained only by reducing correspondingly the scores on one or more of the other values. In interpreting the results, therefore, it is necessary to bear in mind that they reveal only the *relative* importance of each of the six values in a given personality, not the total amount of "value energy" or drive possessed by an individual. It is quite possible for the highest value of a generally apathetic person to be less intense and effective than the lowest value of a person in whom all values are prominent and dynamic.

RELIABILITY AND VALIDITY

Successive revisions of the test have shown that each *theoretical* item is positively associated with the total score derived from all the *theoretical* items, and that the items for each of the other values likewise "hang together" consistently. The split half reliability of the total test is fairly satisfactory. For 776 subjects of both sexes a reliability of $+.72$ was obtained by methods which are discussed in the article cited at the beginning of the pamphlet. In one investigation repeat reliabilities of the total test approximate $+.82$:

The validity of the scale cannot be established adequately by the use of rating methods, since the unfamiliarity of most raters with the conceptual nature of the values makes for low reliability in their judgments. Considering the test as a whole, correlations of $+.45$ to $+.59$ with ratings have been obtained (if corrected for attenuation, these figures would indicate an agreement of about $+.83$). The reliability and validity for the separate values vary, however: *aesthetic* and *religious* values are the most satisfactory, *social* values the least satisfactory.

More convincing validation comes from an examination of the scores of groups whose characteristics are known. The following table presents some significant comparisons. The highest scores for each group, italicized in the table, confirm the expectation of common sense. The low scores on other values are equally significant.

Sex Differences	Theo- retical	Eco- nomic	Æsthetic	Social	Political	Reli- gious
1163 males	30.83	32.02	27.04	29.74	32.08	27.96
1592 females	27.69	27.04	33.03	31.65	27.87	33.31
2755 combined	29.26	29.53	30.04	30.69	29.98	30.63
Illustrative Occupational Differences						
26 students of science (male)	34.3	28.5	28.6	29.4	33.4	25.8
64 students in engineering	32.0	35.1	26.1	29.0	31.4	26.4
125 commercial students (male)	32.2	34.5	21.9	28.7	31.8	30.9
81 salesmanship students (male)	27.1	38.3	24.2	26.8	36.4	25.5
51 students of law (male)	26.0	30.3	28.0	30.7	37.1	27.6
24 students of literature (female)	23.7	27.2	40.2	29.4	29.5	36.1
80 missionaries (both sexes)	27.0	23.0	26.3	35.0	21.8	48.9
26 Boy Scout leaders	31.6	32.6	21.5	32.3	28.5	33.5

Note: The mean scores for these occupational groups are found to be decidedly significant when studied in the light of the statistical reliability of the differences. See page 11 for a reference to additional studies of selected groups of subjects.

SUGGESTED USES

1. *Classroom Demonstration.* The scale has been found serviceable in courses in general psychology as well as in social psychology and personality. It provides a concrete medium for introducing students to the problem of interest and motive, and especially, of course, to the theories of Spranger's school of thought. It illustrates likewise many of the problems encountered in the measurement of personality (standardization, reliability, validation, interpretation).

Not the least appealing feature of the scale is its "practical" nature. Students always show an interest in their own scores, and enjoy a discussion of the results. They usually feel that the classification of the six types of value is useful to them. Of course they should not be encouraged to regard the types as rigid, but rather to consider them merely as six of the general attitudes in personality in respect to which individuals may profitably be compared.

2. *Research.* In certain types of investigation the *Study of Values* may be found of considerable assistance. Its possible utility in the following lines of research is apparent: (a) the study of sex, racial, vocational and sectional differences; (b) the change in the profiles

of individuals with maturity; (c) the effect of new environments or new courses of instruction upon profiles; (d) resemblances between friends and between members of one family; (e) the relation between values and abilities; (f) the correlation of this scale with other scales directed toward the measurement of interests.

3. *Vocational Guidance and Personnel Work.* Although norms for different occupations are not available, the present test may be useful to the vocational counsellor in securing an initial impression of the interests of his client. The values measured are much broader than specific vocational interests; nevertheless, the preceding table has shown that students of science, law, literature, theology, etc., possess distinctive patterns of values.

SPRANGER'S TYPES

In discussing the *Study of Values* with his subjects, the examiner may find it convenient to have at hand the following brief characterization of Spranger's types. For a fuller account he should of course refer directly to Spranger's *Types of Men*.

(1) *The theoretical.* The dominant interest of the theoretical man is the discovery of *truth*. In the pursuit of this goal he characteristically takes a "cognitive" attitude, one that looks for identities and differences; one that divests itself of judgments regarding the beauty or utility of objects, and seeks only to observe and to reason. Since the interests of the theoretical man are empirical, critical, and rational, he is necessarily an intellectualist, frequently a scientist or philosopher.¹ His chief aim in life is to order and to systematize his knowledge.

(2) *The economic.* The economic man is characteristically interested in what is *useful*. Based originally upon the satisfaction of bodily needs (self-preservation), the interest in utilities develops to embrace the practical affairs of the business world — the production, marketing, and consumption of goods, the elaboration of credit, and the accumulation of tangible wealth. This type is thoroughly "practical" and conforms well to the prevailing stereotype of the average American business man.

¹ It must not be thought that a high degree of talent or attainment is necessary to qualify a person for classification in this, or in any, type. Even the most undistinguished personalities are to be known not by their achievements but by their interests and intentions.

The economic attitude frequently comes into conflict with other values. The economic man wants education to be practical, and regards unapplied knowledge as waste. Great feats of engineering, Taylorism, pragmatism, and "applied psychology" result from the demands which economic men make upon science. The value of utility likewise conflicts with the æsthetic value, excepting when art serves commercial ends. Without feeling inappropriateness in his act, the economic man may denude a beautiful hillside or befoul a river with industrial refuse. In his personal life he is likely to confuse luxury with beauty. In his relations with people he is more likely to be interested in surpassing them in wealth than in dominating them (political attitude) or in serving them (social attitude). In some cases the economic man may be said to make his religion the worship of Mammon. In other instances, however, he may have regard for the traditional God, but inclines to consider Him as the giver of good gifts, of wealth, prosperity, and other tangible blessings.

(3) *The æsthetic.* The æsthetic man sees his highest value in *form* and *harmony*. Each single experience is judged from the standpoint of grace, symmetry, or fitness. He regards life as a manifold of events; each single impression is enjoyed for its own sake. He need not be a creative artist; nor need he be effete; he is æsthetic if he but finds his chief interest in the artistic episodes of life.

The æsthetic attitude is in a sense diametrically opposed to the theoretical; the former is concerned with the diversity, and the latter with the identities of experience. The æsthetic man chooses, with Keats, to consider truth as equivalent to beauty, or else to agree with Mencken, that, "to make a thing charming is a million times more important than to make it true." In the economic sphere the æsthete sees the process of manufacturing, advertising, and trade as a wholesale destruction of the values most important to him. In social affairs he may be said to be interested in persons but not in the welfare of persons; he tends toward individualism and self-sufficiency. Æsthetic people often like the beautiful insignia of pomp and power, but oppose political activity when it makes for the repression of individuality. In the field of religion they are likely to confuse beauty with purer religious experience.

(4) *The social.* The highest value for this type is *love* of people;

whether of one or many, whether conjugal, filial, friendly, or philanthropic.¹ The social man prizes other persons as ends, and is therefore himself kind, sympathetic, and unselfish. He is likely to find the theoretical, economic, and æsthetic attitudes cold and inhuman. In contrast to the political type, the social man regards love as itself the only suitable form of power, or else repudiates the entire conception of power as endangering the integrity of personality. In its purest form the social interest is selfless and tends to approach very closely to the religious attitude.

(5) *The political.* The political man is interested primarily in power. His activities are not necessarily within the narrow field of politics; but whatever his vocation, he betrays himself as a *Machtmensch*. Leaders in any field generally have high power value. Since competition and struggle play a large part in all life, many philosophers have seen power as the most universal and most fundamental of motives. There are, however, certain personalities in whom the desire for a *direct* expression of this motive is uppermost, who wish above all else for personal power, influence, and renown.

(6) *The religious.* The highest value of the religious man may be called *unity*. He is mystical, and seeks to comprehend the cosmos as a whole, to relate himself to its embracing totality. Spranger defines the religious man as one "whose mental structure is permanently directed to the creation of the highest and absolutely satisfying value experience." Some men of this type are "immanent mystics," that is, they find in the affirmation of life and in active participation therein their religious experience. A Faust with his zest and enthusiasm sees something divine in every event. The "transcendental mystic" on the other hand seeks to unite himself with a higher reality by withdrawing from life; he is the ascetic, and, like the holy men of India, finds the experience of unity through self-denial and meditation. In many individuals the negation and affirmation of life alternate to yield the greatest satisfaction.

Mixtures. Spranger does not imply that a given man belongs

¹ In the *Study of Values*, scores for social interests have low reliability, a fact which seems to show that this type is not as unified as Spranger believes. Specifically, the results may indicate the need for two distinct types: the narrow personalized love and the broader, socialized and philanthropic love. What is ordinarily called sociability and gregariousness seems to be a still different interest.

exclusively to one or another of these types of values. In every personality, as the present test shows, there exist *all* of these six values, although usually in varying degrees of prominence.

RECENT APPLICATIONS

A summary of all published work employing the *Study of Values* up to August, 1933, together with a report of several previously unpublished investigations, was issued by H. Cantril and G. W. Allport, *Recent Applications of the Study of Values, Journ. Abnorm. & Soc. Psychol.*, 1933, 28, 259-273. Among the findings of this study may be mentioned:

- (1) the verification of norms and reliabilities;
- (2) the fact that the test is uniformly successful in distinguishing the basic interests of contrasting occupational groups;
- (3) the fact that it discloses distinctive patterns of interests in different colleges and educational centers;
- (4) the fact that an individual's attitudes toward clothes, toward conditions making for contentment in life, toward qualities required by the "ideal" person, toward the content of newspapers — are all consistent reflections of his own personal values as measured by the scale.

Concerning the theoretical implications of the test for the psychology of personality, the authors conclude that these values (with the possible exception of the social) must be interpreted as self-consistent, pervasive, enduring, and above all *generalized*, traits of personality. A person's activity is seldom determined exclusively by the stimulus of the moment, by a transient interest, or by an attitude specific to each situation; it is usually determined by *general evaluative attitudes* which exert a directive effect upon his common activities, and in so doing guarantee the stability and consistency of his personality.

ACKNOWLEDGMENTS AND COMMUNICATIONS

The original scale and the present revision of the Manual of Directions were made possible by the generous co-operation of many psychologists and other investigators. The list of contributors is unfortunately too long to permit an individual mention of their names.

The authors will be grateful if users of the scale will continue to send distributions of scores (with a statement of the type of group from which they are obtained), criticisms, and other results of experience. Address communications to G. W. Allport, Emerson Hall, Cambridge, Mass.

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NAME _____

A STUDY OF VALUES .

PART I

DIRECTIONS: A number of controversial statements or questions with two alternative answers are given below. Indicate your personal preferences by writing the appropriate figures in the right-hand columns, as indicated:

If you agree with alternative (a) and disagree with (b), write 3 in the first column and 0 in the second column, thus

If you agree with (b); disagree with (a), write

If you have a slight preference for (a) over (b), write

If you have a slight preference for (b) over (a), write

(a)	(b)
3	0
0	3
2	1
1	2

Do not write any other combination of figures after any question except one of these four.

There is no time limit, but do not linger long over any one question or statement, and do not leave out any of the questions, unless you find it really impossible to make a decision.

1. The main object of scientific research should be the discovery of pure truth rather than its practical applications. (a) Yes; (b) No.

2. Do you think that it is justifiable for the greatest artists, such as Beethoven, Wagner, Byron, etc., to be selfish and negligent of the feelings of others? (a) Yes; (b) No.

(a)	(b)

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29. Under similar circumstances would you choose to write about: (a) the best way to distribute one's income between, say, the necessities of life, luxuries, and savings, or (b) the personality of some close friend of yours.

30. When witnessing a gorgeous ceremony (ecclesiastical or academic, induction into office, etc.) are you more impressed: (a) by the unified idea or institution which the group represents, or (b) by the color and pageantry of the occasion itself?

(a)	(b)

Continue with Part II.

PART II

DIRECTIONS: Each of the following situations or questions is followed by four possible attitudes or answers. Arrange these answers in the order of your personal preference from first to fourth by writing, in the left hand margin,

...1... beside the answer that appeals to you most,

...2... beside the answer which is next most important to you,

...3... beside the next, and

...4... beside the answer that least represents your interest or preference.

You may think of answers which would be preferable from your point of view to any of those listed. It is necessary, however, that you make your selection from the alternatives presented, and arrange all four in order of their desirability, guessing when your preferences are not distinct. If you find it really impossible to guess your preference, you may omit the question.

1. Do you think that a good government should aim chiefly at —

.....a. more aid for the poor, sick, and old

.....b. the development of manufacturing and trade

.....c. introducing more ethical principles into its policies and diplomacy

.....d. establishing a position of prestige and respect among nations

2. In your opinion, can a man who works in business for his living all the week best spend Sunday in —

-a. trying to educate himself by reading serious books
-b. trying to win at golf, or racing
-c. going to an orchestral concert
-d. hearing a really good sermon

3. If you could influence the educational policies of the public schools of some city, would you undertake —

-a. to promote the study and the performance of drama
-b. to develop coöperativeness and the spirit of service
-c. to provide additional laboratory facilities
-d. to promote school savings banks for education in thrift

4. Do you prefer a friend (of your own sex) who —

-a. is efficient, industrious, and of a practical turn of mind
-b. is seriously interested in thinking out his attitude toward life as a whole
-c. possesses qualities of leadership and organizing ability
-d. shows refinement and emotional sensitivity

5. If you lived in a small town and had more than enough income for your needs, would you prefer to —

-a. apply it productively to industrial development
-b. help to endow the church to which you belong
-c. give it to a university for the development of scientific research
-d. devote it to hospitals

6. When you go to the theatre do you, as a rule, enjoy most —

-a. plays that treat the lives of great men
-b. ballet or similar imaginative performances
-c. plays with a theme of human suffering and love
-d. problem plays that argue consistently for some point of view

7. Assuming that you are a man with the necessary ability, and that the salary for each of the following occupations is the same, would you prefer to be a —

-a. mathematician
-b. sales manager
-c. clergyman
-d. politician

8. If you had unlimited leisure and money, would you prefer to —

-a. make a collection of fine sculptures or paintings
-b. establish a mental hygiene clinic for taking care of the maladjusted and mentally deficient
-c. aim at a senatorship, or a seat in the Cabinet
-d. enter into banking and high finance

9. At an evening discussion with intimate friends of your own sex, are you most interested when you talk about —

-a. the "meaning" of life
-b. philosophy and psychology
-c. literature
-d. socialism and social amelioration

10. Which of the following would you prefer to do during part of your next summer vacation (if your ability and other conditions would permit) —

-a. write and publish an original biological essay or article
-b. stay in some secluded part of the country where you can appreciate fine scenery
-c. go in for a local tennis or other athletic tournament
-d. get experience in some new line of business

11. Do great exploits and adventures of discovery such as Lindbergh's and Byrd's seem to you significant because —

-a. they represent conquests by man over the difficult forces of nature
-b. they add to our knowledge of mechanics, geography, meteorology, etc.
-c. they weld human interests and international feelings throughout the world
-d. they contribute to the ultimate revelation of the meaning of the universe

12. Should one guide one's conduct according to, or develop one's chief loyalties toward —

-a. one's religious faith
-b. ideals of beauty
-c. one's business organizations and associates
-d. society as a whole

13. To what extent do the following famous persons interest or attract you —

-a. Florence Nightingale
-b. Napoleon
-c. Henry Ford
-d. Charles Darwin

14. If you should marry (or are married), do you prefer a wife who —
(Women answer the alternative form below) —

-a. can achieve social prestige, commanding admiration from others
-b. likes to stay at home and keep house
-c. is fundamentally spiritual in her attitude toward life
-d. is gifted along artistic lines

(For women) **Do you prefer a husband who —**

-a. is successful in his profession, commanding admiration from others
-b. is domestic in his tastes
-c. is fundamentally spiritual in his attitude toward life
-d. is gifted along artistic lines

15. Viewing Leonardo da Vinci's picture — "The Last Supper" — would you tend to think of it —

-a. as expressing the highest spiritual tendencies and emotions
-b. as one of the most priceless and irreplaceable pictures ever painted
-c. in relation to Leonardo's versatility and its place in history
-d. as a masterpiece of design

Name..... Age.....

SCORE SHEET FOR THE STUDY OF VALUES

Directions

- 1. First make sure that every question has been answered.
Note: If you have found it impossible to answer all the questions, you may give equal scores to the alternative answers under each question that has been omitted; thus,
Part I. 1½ for each alternative. The sum of the scores for (a) and (b) must always equal 3.
Part II. 2½ for each alternative. The sum of the scores for the four alternatives under each question must always equal 10.
- 2. Transfer your scores directly to the proper boxes on the next two pages.
E.g., Part I: If for your first question you have a score of 2 in column (a), and 1 in column (b), the scores will appear on the next page as follows:

Part I. Question	Type of value					
	Theo- retical	Eco- nomic	Æs- thetic	Social	Politi- cal	Relig- ious
1.	a 2	b 1				

E.g., Part II: Suppose you have marked the alternatives in the first question as follows:

3	a
4	b
1	c
2	d

When transcribed, these scores will appear in the corresponding boxes on the third page like this:

Part II Question	Type of Value					
	Theo- retical	Eco- nomic	Æs- thetic	Social	Politi- cal	Relig- ious
1.		b 4		a 3	d 2	c 1

- 3. Add the vertical columns of scores in Part I and Part II separately.
- 4. Make certain that the sum of the six totals in each part is equal to the figure printed to their right.
- 5. In Part II subtract your scores from the printed correction figures, as indicated on the third page.
- 6. Transcribe the total scores for the separate values, i.e., the numbers at the bottom of each page, to the last page.
- 7. Add the pairs of scores for each value to secure your final totals.
- 8. Plot these totals on the vertical lines in the graph, and compare them with the norms printed beneath the graph.

PART I.		Type of Value.					
Question		Theo- retical	Eco- nomic	Aes- thetic	Social	Polit- ical	Relig- ious
1	a		b				
2				a	b		
3						a	b
4	b			a			
5			a			b	
6					b		a
7			b	a			
8	b				a		
9			a				b
10	b					a	
11				b			a
12					b	a	
13	a						b
14			b		a		
15				b		a	
16	b		a				
17				b	a		
18						b	a
19	a			b			
20			b			a	
21					a		b
22			a	b			
23	a				b		
24			b				a
25	a					b	
26				a			b
27					b	a	
28	b						a
29			a		b		
30				b		a	
TOTALS							

The sum of the
scores for each
row must
equal 3

The sum of
these six
totals must
equal 90

Transcribe this row of figures to the last page.

PART II.		Type of Value.					
Question		Theo- retical	Eco- nomic	Aes- thetic	Social	Polit- ical	Relig- ious
1			b		a	d	c
2	a			c		b	d
3	c		d	a	b		
4			a	d		c	b
5	c		a		d		b
6	d			b	c	a	
7	a		b			d	c
8			d	a	b	c	
9	b			c	d		a
10	a		d	b		c	
11	b				c	a	d
12			c	b	d		a
13	d		c		a	b	
14				d	b	a	c
15	c		b	d			a
TOTALS							

The sum of the
ranks for each
row must
equal 10

The sum of
these six
totals must
equal 150

Subtract these totals from:

Corrections	39	41	41	36	41	42
Corrected Totals						

The sum of
the six cor-
rected totals
must equal 90

Transcribe this row of corrected totals to the last page.

		Theo- retical	Eco- nomic	Æs- thetic	Social	Polit- ical	Relig- ious	
Totals from PART I								
Corrected totals from PART II								
FINAL SCORES								
The sum of the six final totals must equal 180								
Significantly high	60							60
	50							50
	40							40
Scores from 81-28 are average	30							30
	20							20
	10							10
Significantly low	0							0
		Theo- retical	Eco- nomic	Æs- thetic	Social	Polit- ical	Relig- ious	

PROFILE OF VALUES

Percentile	Scores on any value	Percentile	Scores on any value
5 (low)	0-16	60	30-31
10	17-19	70	32-34
20	20-23	80	35-36
30	24-25	90	37-40
40	26-27	95	41-43
50	28-30	100 (high)	44-60

NORMS FOR ADULTS AND UNDERGRADUATES (BOTH SEXES)

APPENDIX IV
OPINIONNAIRE

Dr. Milton Rokeach, Michigan State University

The following is a survey of the opinions of people in general about a number of social and personal questions. Of course there are many different answers. The best answer to each statement below is your personal opinion. We have tried to cover many different and opposing points of view; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others; whether you agree or disagree with any statement, you can be sure that many other people feel the same as you do.

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write +1, +2, +3, or -1, -2, -3, depending on how you feel in each case.

+1: I AGREE A LITTLE

-1: I DISAGREE A LITTLE

+2: I AGREE ON THE WHOLE

-2: I DISAGREE ON THE WHOLE

+3: I AGREE VERY MUCH

-3: I DISAGREE VERY MUCH

- ___ 1. A person who thinks primarily of his own happiness is beneath contempt .
- ___ 2. The main thing in life is for a person to want to do something important.
- ___ * 3. I wish people would be more definite about things.
- ___ 4. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.
- ___ 5. Most people just don't know what's good for them.
- ___ * 6. A person who has bad manners, habits, and breeding can hardly expect to get along with decent people.
- ___ 7. In times like these, a person must be pretty selfish if he considers his own happiness primarily.
- ___ 8. A man who does not believe in some great cause has not really lived.
- ___ * 9. I work under a great deal of tension at times.

* Disregard score

+ 1: I AGREE A LITTLE

-1: I DISAGREE A LITTLE

+ 2: I AGREE ON THE WHOLE

-2: I DISAGREE ON THE WHOLE

+ 3: I AGREE VERY MUCH

-3: I DISAGREE VERY MUCH

- ___ 10. I'd like it if I should find someone who would tell me how to solve my personal problems.
- ___ 11. Of all the different philosophies which have existed in this world there is probably only one which is correct.
- ___ 12. Whether it's alright to manipulate people or not, it is certainly alright when it's for their own good.
- ___ 13. It is when a person devotes himself to an ideal or cause that his life becomes meaningful.
- ___ 14. In this complicated world of ours the only way we can know what is going on is to rely upon leaders or experts who can be trusted.
- ___* 15. If people would talk less and work more, everybody would be better off.
- ___ 16. There are a number of persons I have come to hate because of the things they stand for.
- ___ 17. There is so much to be done and so little time to do it in.
- ___* 18. It is when a person devotes himself to an ideal or cause that he becomes important.
- ___ 19. It is better to be a dead hero than a live coward.
- ___ 20. A group which tolerates too much difference of opinion among its own members cannot exist for long.
- ___* 21. The business man and the manufacturer are much more important to society than the artist and the professor.
- ___ 22. It is only natural that a person should have a much better acquaintance with ideas he believes in than with ideas he opposes.
- ___ 23. While I don't like to admit this even to myself, I sometimes have the ambition to become a great man, like Einstein, or Beethoven, or Shakespeare.

- | | |
|---------------------------|-----------------------------|
| + 1: I AGREE A LITTLE | -1: I DISAGREE A LITTLE |
| + 2: I AGREE ON THE WHOLE | -2: I DISAGREE ON THE WHOLE |
| + 3: I AGREE VERY MUCH | -3: I DISAGREE VERY MUCH |

- * 24. Plain common sense tells you that prejudice can be removed by education, not legislation.
- 25. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary at times to restrict the freedom of certain political groups.
- 26. If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all."
- * 27. A person must be pretty stupid if he still believes in differences between the races.
- 28. Most people just don't give a "damn" about others.
- 29. A person who gets enthusiastic about a number of causes is likely to be a pretty "wishy-washy" sort of person.
- * 30. Do unto others as they do unto you.
- 31. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.
- 32. If given the chance I would do something that would be of great benefit to the world.
- * 33. The trouble with many people is that they don't take things seriously enough.
- 34. In times like these it is often necessary to be more on guard against ideas put out by certain people or groups in one's own camp than by those in the opposing camp.
- 35. In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.
- * 36. It bothers me when something unexpected interrupts my daily routine.
- 37. Once I get wound up in a heated discussion I just can't stop.

+ 1: I AGREE A LITTLE

-1: I DISAGREE A LITTLE

+ 2: I AGREE ON THE WHOLE

-2: I DISAGREE ON THE WHOLE

+ 3: I AGREE VERY MUCH

-3: I DISAGREE VERY MUCH

- 38. There are two kinds of people in this world: those who are on the side of truth and those who are against it.
- *39. What the youth needs is strict discipline, rugged determination, and the will to work and fight for family and country.
- 40. Man on his own is a helpless and miserable creature.
- 41. The United States and Russia have just about nothing in common.
- *42. I set a high standard for myself and I feel others should do the same.
- 43. In the history of mankind there have probably been just a handful of really great thinkers.
- 44. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.
- *45. Appreciation of others is a healthy attitude, since it is the only way to have them appreciate you.
- 46. The present is all too often full of unhappiness. It is the future that counts.
- 47. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what is going on.

+ 1: I AGREE A LITTLE

-1: I DISAGREE A LITTLE

+ 2: I AGREE ON THE WHOLE

-2: I DISAGREE ON THE WHOLE

+ 3: I AGREE VERY MUCH

-3: I DISAGREE VERY MUCH

- *48. People who seem unsure and uncertain about things make me feel uncomfortable.
- 49. Fundamentally, the world we live in is a pretty lonely place.
- 50. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.
- *51. In general, full economic security is bad; most men wouldn't work if they didn't need the money for eating and living.
- 52. The worst crime a person can commit is to attack publicly the people who believe in the same thing he does.
- 53. In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.
- *54. The American re-armament program is clear and positive proof that we are willing to sacrifice to preserve our freedom.
- 55. Most of the ideas which get published nowadays aren't worth the paper they are printed on.
- 56. It is only natural for a person to be rather fearful of the future.
- *57. Most of the arguments or quarrels I get into are over matters of principle.
- 58. My blood boils whenever a person stubbornly refuses to admit he's wrong.
- 59. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.
- *60. America may not be perfect, but the American way has brought us about as close as human beings can get to a perfect society.

APPENDIX V

Dear :

It seems some time since we had our talks in Missouri Valley, and I hope that your work is fulfilling your expectations, and that you are happy in it. I am still very interested in counseling, and trying to be of more help to college students.

You may recall one of the tests we used in Missouri Valley, "A Study of Values" and my concern is, do our values change with new experiences, and if so, do they change so much that other means should be used in helping students.

Would you help me to secure some answers to these questions, which will make us better able to help future students? I am enclosing a copy of the test on which I have your previous score, and a list of questions, which will give me your opinion on some other problems, and I shall greatly appreciate your help.

You may be interested in the results of this study, and if so, I shall be glad to send them to you.

Yours sincerely,

Enc. 3.

COMPREHENSIVE RECORD FORM

Percival M. Symonds, Teachers College, Columbia University

APPENDIX VI

File _____

Date _____

Advisors _____

PERSONAL DATA

1. Place of birth _____
City and County

State

Country

Year of birth _____

Male ()

Race

Nationality _____

Female ()

Religious affiliation _____

Marital Status: Single () Married () Widowed ()

Separated () Divorced ()

Number and ages of children _____

Number of other persons entirely dependent upon you for support:

Under eighteen years of age: _____Over eighteen years of age: _____Health: How many days illness have you had during the past
five years? _____. Cause: _____2. About your father: Age: _____ Age at death: _____
Your age at his death: _____

Education:

Occupation (s):

Interests and Recreations:

Politics:

Religion?

What sort of person is (or was) your father?

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It includes a detailed description of the data collection process, from identifying the sources of data to the actual collection of the data itself.

3. The third part of the document describes the various methods and techniques used to analyze the data. It includes a detailed description of the data analysis process, from identifying the key variables to the actual analysis of the data.

4. The fourth part of the document discusses the various methods and techniques used to present the results of the analysis. It includes a detailed description of the data presentation process, from identifying the key findings to the actual presentation of the results.

5. The fifth part of the document discusses the various methods and techniques used to interpret the results of the analysis. It includes a detailed description of the data interpretation process, from identifying the key findings to the actual interpretation of the results.

6. The sixth part of the document discusses the various methods and techniques used to validate the results of the analysis. It includes a detailed description of the data validation process, from identifying the key findings to the actual validation of the results.

7. The seventh part of the document discusses the various methods and techniques used to ensure the reliability of the results of the analysis. It includes a detailed description of the data reliability process, from identifying the key findings to the actual reliability of the results.

8. The eighth part of the document discusses the various methods and techniques used to ensure the validity of the results of the analysis. It includes a detailed description of the data validity process, from identifying the key findings to the actual validity of the results.

9. The ninth part of the document discusses the various methods and techniques used to ensure the accuracy of the results of the analysis. It includes a detailed description of the data accuracy process, from identifying the key findings to the actual accuracy of the results.

10. The tenth part of the document discusses the various methods and techniques used to ensure the consistency of the results of the analysis. It includes a detailed description of the data consistency process, from identifying the key findings to the actual consistency of the results.

3. About your mother: Age: Age at death: Your age at her death:

Education:

Occupation(s):

Interests and Recreations:

Politics:

Religion:

What sort of person is (or was) your mother?

4. Which parent do you think had more to do with your becoming the kind of person you are?

To which parent did you feel closer at the ages of

6 10 16 25 now?

Which parent exercised the discipline in your family?

5. Give the ages of all brothers and sisters in relation to your own: Thus, if you have or had a brother 5 years older and a sister 2 years younger then you write, B 5, S-2; if any have died, indicate by inclosing in parentheses.

B B B B B B B B

S S S S S S S S

6. What major satisfactions did you derive from your relationship with your brothers and sisters?

7. What kinds of friction existed and what were their causes?

8. What other people (relatives, guardians, friends, etc.) influenced your development?

9. At what age, approximately, did you stop wetting the bed?

Did you ever suck your thumb? bite nails?

have temper tantrums? have nightmares?

walk in your sleep? stammer? talk in your sleep?

10. Apart from the usual childhood diseases, how was your health up to the age of 20?

11. List in chronological order, with approximate ages, all major (a) illnesses, (b) operations, and (c) accidents.

12. Institutions attended.

List in order, beginning with the secondary school, all the school training which you have received to date, including residence study, extension, correspondence, and summer session. List each institution separately.

Institution	Location city-state	Length of time Attended (e.g., 13 mos.; 6 wks)	Years or Sessions (e.g., 1915- 19; Winter 1919; Sum- mer 1922)	Year gradu- ated	Degree or Diploma Received
-------------	------------------------	--	---	------------------------	-------------------------------------

13. Major field?

First Minor (If any)?

Second Minor (if any)?

Record your college work by writing in Course Descriptions (name and number), Grade, Hours, Honor Points, under appropriate headings.

First Year					
<u>Course</u>	<u>Grade</u>	<u>Hours</u>	<u>Points</u>	<u>Course</u>	<u>Grade</u> <u>Hours</u> <u>Points</u>

Second Year

Third Year

Fourth Year

14. Was your high school record: Poor Average Good Excellent?
(Encircle answer)
College record: Poor Average Good Excellent?

What were your best subjects?
worst subjects?
best liked?
Least liked?

15. College Activities

List your participation in college activities.

Activity	Nature of Participation, (member, audience, office, etc.)	Length of Participation	Comment
----------	---	-------------------------	---------

16. Membership in Civic, Fraternal, Religious, and Other Organizations.

Organization	Year Admitted	Now Active?	Kind of participation
--------------	---------------	-------------	-----------------------

17. Military Service

If a member of any of the Armed Services, which one?

Date of induction?

List ranks or grades, stations, special duties and responsibilities in your military service and dates for each.

18. Special Interests

What sports have you enjoyed?

On what teams have you played?

In what other activities (hobbies, etc.) have you engaged?

List some of your favorite books.

What magazines do you read most?

What foreign travel have you done?

19. Leadership Experience and Abilities

Place one check mark before each of those concerning which you have some knowledge; two checks before each of those in which you have participated, three checks before each of those in which you have given satisfactory leadership. Add any others and check accordingly.

Community singing
play acting
public speaking
community chest
canoeing
swimming
piano
string instrument
drums
wind instrument
group games
folk dancing
group discussion

debate
camping
nature study
art
sports (name)

woodwork
other crafts (name)

20. Work Experience

List in chronological order all different work experiences, both remunerative and gratis. Do not list the same kind of experience more than once.

<u>Dates</u>	<u>Employer</u>	<u>Nature of Work</u>	<u>Maximum remuneration</u>
From To	(name & Address)		(Indicate, day, week, month, year, etc.)

2.3
2.4
2.5
2.6
2.7

2.8

2.9

2.10

2.11

21. Honors Received

List any honors received such as scholarships, election to honorary societies, election to offices in clubs, fraternities, etc, special awards, and other honorary recognition. Include those received in both secondary school and college.

Year	Nature of Recognition	Institution Conferring
------	-----------------------	------------------------

22. Marital History

Write a brief marital history, including date of marriage, ages of children, also separations, or divorces, or remarriage. Give age and occupation of wife (or husband).

23. Interpretative Summary

In relation to your achievements and plans, give an account of the factors in your life which you believe have been most significant. The following items may be suggestive.

In your personality growth and academic advancement what major decisions have had to be made? How were these decisions made? To what extent have your plans worked out? How did you come to choose this college and your college major? Within this broad area, what particular problems have appealed to you most? What experiences outside the regular academic work have been important? (Use also page 10, if needed).

APPENDIX VII

COMPARISON OF THE MALE AND FEMALE SUBGROUPS

TABLE IIIB

COMPARISON OF THE MALE AND FEMALE SUBGROUPS ON THE SUBSCALES
OF THE STUDY OF VALUES FOR THE RETEST

N 104

Scale	Mean (M)	Mean (F)	Diff/Mean	"t"	P
T	28.91	27.59	1.32	.3300	NS
E	27.54	27.25	.29	.0435	NS
A	23.46	22.98	.48	.0783	NS
S	28.73	31.57	2.84	.5396	NS
P	29.84	28.91	.93	.1627	NS
R	41.02	43.47	2.45	.3920	NS

For α .05 "t" = 1.98

TABLE VA

GROUP PATTERNS OF THE MALE AND FEMALE
SUBGROUPS OF THE LOW DOGMATIC GROUP

TEST 1950

Group		T	E	A	S	P	R
Male	(16)	5	4	6	2	3	1
Female	(9)	5	4	6	2	3	1

RETEST 1956

Group		T	E	A	S	P	R
Male	(16)	3	6	5	2	4	1
Female	(9)	3	6	5	2	4	1

TABLE VI A

DEGREE OF CONCORDANCE OF THE MALE AND FEMALE
SUBGROUPS OF THE LOW DOGMATIC GROUP

TEST 1950

GROUP	W	P
Male (16)	.9690	.01
Female (9)	.5296	.01

RETEST 1956

GROUP	W	P
Male (16)	.9725	.01
Female (9)	.6469	.01

Sig. at .01 for 8d.f. = .4108

Sig. at .01 for 15 d.f. = .3398

TABLE VIIB

COMPARISON OF THE MALE AND FEMALE SUBGROUPS OF THE LOW DOGMATIC
GROUP ON THE SUBSCALES OF THE STUDY OF VALUES FOR THE RETEST

N 25

Scale	Mean (M)	Mean (F)	Diff/Mean	"t"	P
T	29.80	29.38	.42	.0621	NS
E	24.95	22.14	2.81	.4283	NS
A	25.85	23.19	2.66	1.2348	NS
S	29.94	32.65	2.71	1.2131	NS
P	28.42	27.23	1.19	.3808	NS
R	44.58	43.66	.92	.1030	NS

For $\alpha .05$ "t" = 2.07

TABLE XIV A

COMPARISON OF THE MALE AND FEMALE SUBGROUPS
OF THE LOW DOGMATIC GROUP ON THE OTIS TEST OF IN-
TELLIGENCE, FORM A

N 25

Scale	Mean (M)	Mean (F)	Diff.	"t"	P
Otis, Form A	117.88	117.18	- .70	- .1785	NS

TABLE XV A

COMPARISON OF THE MALE AND FEMALE SUBGROUPS
OF THE LOW DOGMATIC GROUP ON THE A-S REACTION
STUDY

N 25

Scale	Mean (M)	Mean (F)	Diff.	"t"	P
A-S Reaction Study	- 4.66	- 4.56	.10	.0013	NS

TABLE XVI A

COMPARISON OF THE MALE AND FEMALE SUBGROUPS
OF THE LOW DOGMATIC GROUP ON THE REPLIES GIVEN TO THE QUESTION
"WHAT SORT OF PERSON IS (OR WAS) YOUR FATHER?"

N 25

Groups		*1	2	3
Male	(16)	10	4	2
Female	(9)	6	2	1

Chi Square = .0312¹

* Replies are classified in three categories

1. Ambivalence toward parent
2. Some degree of ambivalence
3. Glorification of parent

¹ Chi Square not significant

Probability at .05 = 36.42

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