

PERSONALITY PATTERNS OF ADVANCED
PROTESTANT THEOLOGY STUDENTS
AND PHYSICAL SCIENCE STUDENTS

Thesis for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
Clifford E. Schroeder
1956



This is to certify that the
thesis entitled

Personality Patterns of Protestant Theology Students and
Physical Science Students
presented by

Clifford E. Schroeder

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Guidance and Counseling

Walter F. Johnson
Major professor

Date May 1, 1956

SUPPLEMENTARY MATERIAL



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PERSONALITY PATTERNS OF ADVANCED PROTESTANT THEOLOGY
STUDENTS AND PHYSICAL SCIENCE STUDENTS

By
Clifford E. Schroeder

AN ABSTRACT

Submitted to the School for Advanced Graduate
Studies of Michigan State University of
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in partial fulfillment of the
requirements for the degree
of

DOCTOR OF PHILOSOPHY

Department of Administrative and Educational Services

Year

1956

Approved

Walter F. Johnson

Relatively few personality studies have been conducted on candidates for the Protestant ministry. The need for greater research in this area is being recognized by Protestant educators who have the responsibility of selecting and training future ministers. The urgency of this problem is disclosed by an increasing tendency for Protestant educators to turn to psychologists and psychiatrists for an evaluation of the prospective theology student as a part of his entrance requirements to graduate seminary. The objective of this study was to see if there are broad personality patterns which characterize Protestant graduate theology students. In order to have some basis for making judgments, they were compared with graduate students in the physical sciences.

From the above discussion, the following hypotheses were subjected to experimental investigation:

1. There are testable personality factors which distinguish divinity students from physical science students.
2. There is a significant difference in general level of adjustment between science and divinity students as determined by a certain check list.
3. The value judgments of divinity students differ significantly from those of physical science students as measured by a certain test.

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4. Psychological test data will yield broad personality clues regarding divinity students which characterize them as divinity students.

The sample for the study included two groups, fifty-five Protestant graduate theology students were selected from Anderson College, Oberlin College and the University of Chicago. Forty-five graduate physical science students were selected from Michigan State University. The fields of specialization represented in the latter group were: Agricultural Engineering, Chemistry, Chemical Engineering, Electrical Engineering, Physics and Mathematics.

The diagnostic instruments employed were the Group Rorschach and the Allport-Vernon Study of Values.

The following general steps were taken in conducting the study:

1. The Group Rorschach and Study of Values were administered to all subjects.

2. The tests were scored and tabulated in convenient form for analysis. The Munroe Check List was utilized as the method of quantifying the Group Rorschach data.

3. The test data was analyzed using appropriate statistical procedures.

4. Some tentative hypotheses were formulated concerning broad personality patterns which characterized Protestant theology students.

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The findings of this study supported the first, third and fourth hypotheses. The second hypotheses was rejected, since the results did not demonstrate a significant difference in adjustment between theology and physical science students.

The Group Rorschach yielded the following broad personality patterns which seemed to characterize both divinity and physical science students: (a) Both groups were of above average intelligence and showed an exceptional ability to make generalizations in thinking. Physical science students express this ability in developing scientific theory while theology students express it in developing religious dogma and in theological speculation. (b) The data suggested that both groups experienced difficulty in establishing warm interpersonal relationships. Theology students were prone to seek refuge in some formalistic way of life or organization. Physical science students may have found this same refuge in the objective and clearly defined rules of scientific procedures. (c) The behavior of theology students tended to be marked by passivity and conformity as a reaction formation against deep seated feelings of hostility and rebellion.

This study suggested that the minister's role provided opportunities for resolving childhood conflicts with authority in a socially constructive manner.

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**PERSONALITY PATTERNS OF ADVANCED PROTESTANT THEOLOGY
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By

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A THESIS

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The author is especially indebted to Dr. Gustave Gilbert who kindly consented to act as co-chairman of the Doctoral Committee and who offered many valuable suggestions throughout the course of the investigation.

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Grateful acknowledgment is extended to Dr. James Karslake for his counsel regarding the statistical aspects of this study, and to Dr. Gregory A. Miller for his assistance in scoring the Group Rorschachs.

Finally, the author is indebted to his wife, Elaine, for her moral support and many contributions too numerous to mention.

Final examination:

Dissertation:

Outline of Study:

Major Subject:

Minor Subject:

Biographical:

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Undergraduate:

Graduate School:

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Experience:

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Psychological

Civil Service

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Final examination, May 4, 1956, 10:00 A.M., 17 Morrill Hall

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Minor Subjects: Clinical Psychology, Higher Education

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Member of American Psychological Association, Michigan
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CHAPTER I

THE PROBLEM AND ITS BACKGROUND

America is a country with over 213 Protestant religious denominations. This diversity of denominational groups is characteristic of American society. In spite of this, Protestant Christianity has been an influential force in this country. Its impact has been felt both in personal and public life. As with other social institutions, its effectiveness is, in part, dependent upon the quality of its leaders. In a modern and complex society, it is important, not only that Protestant Christian leaders possess keen spiritual insight, but also that they be mentally and emotionally mature and well adjusted in their work. The importance of good emotional adjustment is becoming more recognized by Protestant denominational groups. This is reflected in the requirement by some denominations of a psychiatric and psychological evaluation before acceptance for training in religious vocations. This study was conceived as a result of testing some of these prospective candidates for the ministry.

Statement of the Problem

The objective of this study is to provide some basic knowledge of the psychological factors which motivate individuals to enter the ministry. The few personality studies conducted on Protestant ministers provide some tentative hypotheses about their personality structure. Unfortunately these remain in isolated and fragmented form. No effort has been made to organize this information into a coherent picture to see if there are personality patterns which characterize Protestant ministers. Similarly, little effort has been made to relate the psychological needs revealed by these studies to the possible emotional satisfactions provided by various religious vocations. Without such a synthesis of knowledge, a systematic attack on the problems of good emotional adjustment in religious work is extremely difficult. Although such an integration cannot be accomplished in a single study, this investigation attempts to make a step in this direction.

Studies conducted by Roe (97, 98, 100) suggest that there are personality differences among individuals entering various vocations. There is reason to believe that similar differences exist between the ministry and other vocational fields. Again, a single study cannot establish whether personality differences are actually present. A beginning can be made, however, by comparing students entering the ministry with students entering another field. In this study a group of

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graduate Protestant theology students from three midwestern seminaries and representing several denominations were chosen for investigation. In order to provide a basis for making judgments, graduate physical science students from Michigan State University were utilized as a comparative group. Data was obtained by the administration of appropriate personality tests. Since the propagation of certain values is a distinctive characteristic of the ministry, it seemed advisable on logical grounds to include a test designed to measure these values.

From the above discussion, the following hypotheses are presented for investigation:

1. There are testable personality factors which distinguish divinity students from physical science students.
2. There is a significant difference in general level of adjustment between physical science and divinity students as determined by a certain check list.
3. The value judgments of divinity students differ significantly from those of physical science students as measured by a certain test.
4. Psychological test data will yield broad personality clues regarding divinity students which characterize them as divinity students.

Background and Need for the Study

Apparently the first extensive testing of religious workers was conducted with missionaries. A testing program

was inaugurated by the Foreign Missions Conference, representing many Protestant denominations, in 1931. The depression forced an interruption of this program after 1933 and no follow-up of results was attempted until Thayer (119) used the data for his doctoral dissertation. In this same decade the Southern Baptist Church began using psychological and psychiatric procedures to screen prospective candidates for the ministry and have been doing so ever since. Immediately after World War II, the following major denominations began to use psychological testing: the Presbyterians with Dr. Clifford Davis, the Disciples of Christ with Dr. E. K. Higdon and the Congregationalists under the guidance of Dr. Loy Long. In 1949, by a vote of the House of Bishops, psychiatric and psychological examination of Episcopal ministerial candidates was made mandatory. Dr. Gotthard Booth has been conducting these examinations for the General Theological Seminary in New York.

A recent survey was made of 52 theological schools by Elmer G. Million¹ in an effort to determine the use of psychological tests. The tests used were divided into the following classifications: vocational and academic interest, aptitude and intelligence, achievement, personality, and miscellaneous tests. In the area of academic and vocational interest, the most popular test was the Strong Vocational

¹Elmer G. Million, private communication.

Interest with 21 schools using it. The Kuder Preference Test was employed by seven schools, and the Allport-Vernon Study of Values ranked third with three schools utilizing it. In the area of aptitude and intelligence, the first ranked test was the Ohio State Psychological employed by eight schools. In second place was the Otis Test of Mental Maturity used in six schools. Four schools used the third ranked Miller's Analogies Test. Among achievement tests the most popular was the Cooperative English in use at six schools. Next came the Graduate Record Examination used in four schools, followed by the Cooperative Reading Comprehension Test in three schools. By far, the most popular personality test was the Minnesota Multiphasic in use in 22 schools. The Bernreuter and Guilford-Zimmerman were tied for second place being used in 11 schools each. Seven schools employed the Rorschach placing it third.

It is readily apparent that the testing movement among Protestant denominations is new but is slowly gaining momentum. In the field of personality testing, the Minnesota Multiphasic is clearly the most popular. The Rorschach, however, seems to be gaining some recognition. The slowness of its acceptance is undoubtedly due to the time needed to administer the test, its complexity, and the skill required to make an adequate interpretation of the results. A drastic reduction in administration time and a simplification of interpretation would unquestionably hasten its usage if this could be accomplished without too serious impairment of the

sensitivity of the test. The Group Rorschach with the Munroe Check List appears to offer this possibility.

The paucity of satisfactory research in personality evaluation in the field of religious vocations is, in itself, evidence of the need for a study such as this.) If future good adjustment in a religious vocation has, in part, an emotional basis, then the inclusion of a personality measure in the battery of vocational tests becomes of great importance. An understanding of such traits as imaginativeness, amount and methods of handling anxiety, ability to relate to people, etc., as they relate to the Protestant ministry, would provide a valuable new dimension in evaluating future vocational success.

There have been few personality studies of theology students undertaken using projective tests. In view of an increasing popularity of such tests in theological seminaries, research in this area is becoming more important. At the present time the pressure of selecting candidates for religious vocations is so great that there is little time remaining to establish the validity of projective tests and other criteria being used.

Mention has already been made of the need to organize existing knowledge of personality factors into a more understandable psychological theory. By doing so, future research can be better coordinated and directed at important issues.



Limitations of the Study

The sample. The group selected for investigation in this study consisted of Protestant graduate theology students. Various religious groups such as Catholic, Protestant, Jewish, etc., undoubtedly have much in common, and make similar demands upon their leaders. It is possible, however, that important differences also exist. These differences could be a factor in attracting different personalities into different religious groups. In order to control this variable, this study was confined to Protestants.

By the time a student enters graduate school, he should be reasonably settled in his occupational choice. In fact, in some Protestant denominations an individual is not seriously considered as a candidate for the ministry until he does enter graduate school. Selecting a sample at this academic level offers reasonable assurance that it represents the kind of people who ultimately become Protestant ministers.

The necessity of depending on volunteers for subjects always imposes limitations difficult to assess. This is particularly true of theology students who are not especially oriented to scientific methods and are, in some cases, actually antagonistic to them. How this influences the final sample must remain unknown.

This same dependency on volunteers created difficulties in establishing the comparison group of physical science

students. The need to secure a large enough group made it necessary to include several scientific fields.

Instruments. It must be acknowledged that the instruments used to assess the population possess certain limitations. Whenever reliability and validity are less than perfect, some spuriousness must always occur. There are special problems of reliability and validity related to the Rorschach which will be discussed in Chapter III.

A real limitation is the loss of valuable test material brought about by the necessity of reducing qualitative projective data to quantitative terms. This problem of qualitative and quantitative analysis will be discussed in Chapter III.

The unusual construction of the scales in the Allport-Vernon Study of Values presents some difficulties in comparing the theology and science students. These problems are also dealt with more comprehensively in Chapter III.

The limitations and difficulties set forth above must be kept in mind in any interpretations stemming from this study.

Definition of Terms

The psychological terms used in this study are generally understood by individuals in the field. Rorschach workers and other persons reasonably familiar with the Rorschach also should have no difficulty understanding the Rorschach

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Plan of the Study

This thesis is composed of five chapters. The first chapter contains a statement of the problem, the background and need for the study, and its scope and limitations.

Chapter II contains a review of pertinent research related to the personality assessment of ministers. Most of the studies reviewed were conducted on Protestant ministers. A few studies of Catholic seminarians were included that were particularly relevant to this study.

Chapter III consists of a detailed account of the methodology and procedures employed in this study. The method of selecting the samples is discussed, and an explanation is given of the instruments used. The entire study procedure is presented and the method of tabulating and analyzing the data is outlined.

Chapter IV is concerned with the presentation and discussion of the data. This presentation and discussion is organized around the four hypotheses set forth in Chapter I. From this discussion an attempt is made to establish a

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Chapter V

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Chapter V includes a summary of the study, the conclusions and suggestions for further research.

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CHAPTER II

REVIEW OF THE LITERATURE

Protestant Ministers

As long ago as 1928 there was an awareness that emotional factors were responsible for incapacitating a large number of religious workers. McCartney, in studying missionaries from China, reports, "Out of 203 missionaries in one single mission invalided back to the homeland from China . . . a total of 36.7 per cent of all the cases of serious illness in their mission group were suffering from psychopathological conditions." (76:521)

In 1932 Duncan became interested in the reasons why ministers left the ministry. He sent a questionnaire to ministers who were now working in other fields and received replies from 111 of them. Their answers ranged from a feeling of constriction to an inability to get along financially. Just because these people left the ministry did not mean that they gave up their religious convictions. Many of them continued in religious work as laymen. The most frequently mentioned reason for leaving the ministry was a feeling of confinement and lack of freedom. This restriction came, not only from fellow ministers, but also from members of their congregations. Duncan found that many ex-ministers

felt they had more freedom to carry out their religious ambitions as laymen. It would appear from this survey that conformity is one of the important demands made upon ministers. This requirement is reflected in the attitude of the layman that the minister must live an exemplary life. This, many times, includes standards which the layman is unwilling to apply to his own behavior. The minister himself, conscious of his role as representative of God, feels compelled to regulate his behavior in a more circumscribed manner. As a result he places stronger prohibitions on himself and may even be quick to criticize his fellow minister whom he feels may be departing from the high standards expected of him. Roy Burkhardt has aptly expressed this feeling in a recent article. He writes, "We have no purpose but to do the will of our Father. Any less purpose would be the promotion of one's ego; this is not only evil but disillusioning." (16:9) These expectations raise some interesting psychological questions. One would wonder about the minister's reaction to authority. Is it one of passive conformity? On the other hand, what about his role as spiritual leader? Here aggressive authoritativeness is the attribute required. What psychological needs are met by these apparently paradoxical roles?

French, in attempting to understand what he called philosophico-religious sentiments, used several procedures in collecting his data. (31) He employed a Personal History

Form, Discipline Questionnaire, six selected TAT Pictures and the Allport-Vernon Study of Values. In addition, subjects were requested to write a paper on their sentiments, and each one received a personal interview. The sample consisted of fifteen undergraduates and twenty faculty members at Swarthmore College. The author found that those with high philosophico-religious sentiments personality wise showed less repression, more self understanding and were more spontaneous. Those with lower sentiments showed more repression and little awareness of their own projections. Their TAT stories dealt with forces of good and evil and control or lack of it. Their stories also contained more references to sex and aggression. The author concludes that religious experiences develop as a result of need satisfactions or frustrations. It should be observed that this is more of a clinical analysis with little opportunity for statistical treatment of the data. This study was done in 1947 and was the first to include a modified projective test.

The Bernreuter personality questionnaire has been a popular test in studies of religious workers. A typical example is an investigation done by Johnson on the personality traits of workers in religion. (57) The test was given to 150 students and 150 insurance salesmen. The salesmen were used for comparative purposes. According to this test, emotional instability hardly appears in the student group. The students were more inclined to be self

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sufficient than the salesmen. The author recognizes that extreme self sufficiency or stability, etc., can be a detriment. This points up a weakness of this and other psychometric tests. They imply that extremely low scores are indicative of exceptionally good adjustment. Actually, they may reflect pathology. As Johnson recognized, it is possible to be too self sufficient. He goes on to state that Dominance appears more often among the students. This reflects, he feels, a tendency to lack of interest in cooperation and a lack of insight in regard to other people, a rather interesting conclusion in view of the presumed need for cooperativeness and understanding in religious work. The author apparently feels that this trait of Dominance finds expression in the student's fantasy of influencing large groups of people by his eloquence and persuasive power, particularly in the pulpit. This is a fantasy which is not uncommon among theological students and represents a form of power.

In the realm of projective tests a study was done by Dreger attempting to establish some personality correlates of religious attitudes (23). His purpose was to determine the "emotional maturity" of religious Conservatives and Liberals. His groups of Liberals and Conservatives were defined by scores on two selective tests: Army Opinionaire and Ferguson's Primary Social Attitude No. 1. Several hypotheses were then formulated. In condensed form they are

as follows:

1. Religious liberals are more "emotionally mature" than religious conservatives. Personality factors accepted by most authorities as representing adjustment were used.

2. Rigidity of personality structure and conservative religious attitudes are positively correlated.

3. Different types of emotional control are found in both groups.

4. Conservative individuals are more guilt ridden than liberals.

5. Liberals tend to gloss over aggression provoking situations more than conservatives.

6. A greater need for dependence is found in the conservative.

To test these hypotheses, the two groups were given the Rosenzweig Picture-Frustration Study, TAT and Rorschach. From a clinical analysis of the test data, the first hypothesis was accepted in part. The author feels that, except in areas of perceptual keenness and insight, Liberals appear to be more mature and are less ego defensive. Hypotheses two, three, four, and five were rejected. Number six was accepted.

Stern attempted to demonstrate that a battery of projective tests was capable of reflecting the personality characteristics which the seminary faculty had determined as typical of the model theology student (115). The faculty was asked

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to select a group of students it considered as "good" and a group it considered "poor" in terms of personality. These students were then given the Wechsler Bellevue, Rorschach, TAT, Sentence Completions, Szondi and Figure Drawings. Test data was analyzed only sufficiently to classify the student as "good" or "poor". Correspondence between test and faculty assessments was significant at the 5 per cent level of significance. Some observations were made on over-all adjustment for both groups (115:79, 80). Four students, two from each group, were either in or arranging for therapy. Two from each group were experiencing difficulty in achieving adequate heterosexual adjustment. A characteristic disturbance among the students studied seemed to involve a conflict concerning the acceptance of impulses, and the reconciliation of impulse expression with the demands of conscience.

James Ranck has particularly concerned himself with the relationship between religious ideology and personality differences (92). He distributed his sample of 800 students along a Conservative-Liberal continuum. His measurement inventory consisted of selected scales from several tests including the Bernreuter and MMPI. Multiple and partial correlations were used to determine the predictive power of the tests. He concludes that Authoritarianism is substantially related to religious conservatism. Submissiveness also bore a significant but low relationship to Conservatism. Significant but low correlations were found between impulsivity, feminine

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interests and religious liberalism. He found also that traditional family ideology had the highest correlation with religious conservatism.

Cockrun has conducted the most extensive study of ministers. His research is divided into two parts. The first section (19) deals with the correlation between achievement tests and grades. Tests used were the Miller's Analogies, Cooperative Reading Comprehension Form T, and pre-seminary grades. As would be expected, pre-seminary grades were the best predictors of academic success with a correlation of .51. The Miller's Analogies was equally successful with a correlation of .50. The reading test correlated .41.

In the second section (20) the tests used were the Kuder, Guilford-Martin Inventory of Factors GAMIN and the Guilford Inventory of Factors STDCR. On the Kuder the scales above the seventy-fifth percentile were Social Service and Musical. In his analysis of the personality scales, the author feels that theology students are socially extroverted, but in thinking are inclined to meditation and philosophizing. His findings of social extroversion are in contrast to the results of other studies already reviewed. Actually, Cockrun does not make an extensive personality evaluation of his data. He does make the observation that intellectual fitness is not the only prerequisite for success. Failures are too often due to emotional instability. He sets forth the opinion that seminaries have a responsibility to counsel

the individual student on his possible unsuitability for the profession and perhaps save him the trauma of later failure and the waste of time, money and effort. He states that the seminary too would profit if forewarned as to those individuals who need aid.

There is one aspect of the ministry which sets it apart from all other occupations and which has an important bearing on vocational selection. It also has some important consequences in an understanding of the personality dynamics of the minister. This is what is usually referred to as a "Divine Call". This "call" seems to resolve itself into the nature of a struggle. This struggle apparently centers about a resistance to the idea of entering religious work and may be attended by great emotional turmoil. It is usually terminated by a "surrender" on the part of the individual followed by a reduction in psychic tension. What components of the personality are involved in this struggle is difficult to say. It would seem that this would be a profitable area for research. In his study of candidates for church vocations Southard mentions this "Divine Call" and its attending struggle (109). Sixty-three per cent of his candidates mention a struggle as part of their decision or "call". For some this struggle lasted as long as eleven years. Most subjects stated there was from one to three years between their first thought of a church vocation and a final decision. Most decisions were made between 16 and 22 years of age. In

a similar study by Hartshorne, 44 per cent of Northern Baptist seminary seniors stated they felt a sense of divine calling (41). This is a phenomenon which is by no means uncommon in choosing a religious vocation.

Catholic Priests

All studies reviewed have been concerned with the Protestant ministry. The results of similar studies conducted on Catholic candidates to the priesthood offer some valuable comparisons. In a study of minor seminarians by Burke (15), the Washburne Social Adjustment Inventory, Bell Adjustment Scale, and California Test of Personality were compared with the Allport-Vernon Study of Values and the Cleeton Vocational Interest Test. In addition the students were rated on a scale of attributes considered necessary for a successful priest. There was little correlation between any of the tests and the rating scale. Burke felt that the Allport-Vernon could not be used to identify good material for the priesthood on an individual basis but that it did reveal trends for the group. Seminarians have relatively high scores on the Religious, Political and Social Scales.

There are some noteworthy items on the rating scale which are considered essential qualities for the successful priest. They include kindness, piety and religion, profits by correction, generosity, common sense, fidelity to duty,

observance of rules, punctuality, ability to get along, good material, manliness and leadership. It is obvious that many of the items are vague, leaving much latitude for individual interpretation by raters. This is probably one reason why the correlations with tests were so low. These items indicate that a great deal of emphasis is placed on a passive conformity. This is even more apparent here than among Protestant seminarians.

McCarthy (75) also uses the Allport-Vernon and Bell Adjustment Scale in his study, but places his greatest emphasis on the results of the Bernreuter. He states:

The retiring schizophrenic type of character is common among seminary students but this type is not necessarily pathological. (75:12)

The average seminarian reveals a higher neurotic tendency than the average student. He seems to be a little more dependent on others for advice and help. He appears to be average with regard to Bernreuter's measure of introversion. He is more submissive . . . than the average student. Emotionally he is as well adjusted as the average student but he appears to be more shy and retiring in his social contacts. His total adjustment as measured by the Bell Scale is a little more unsatisfactory than the average. (75:37)

These results largely confirm the findings on Protestant students. Again it is worthy of note that the priest, whose primary function is working with people should be found to be shy and retiring in his social contacts.

Bier wondered if test norms could be applied to priests as a particular group (8). If not, he wanted to know how they would have to be changed and why. For purposes of

comparison he chose medical, dental, law and general college students. The particular test he was interested in was the Minnesota Multiphasic. The data was analyzed using analysis of variance and covariance. He found the number of scores in excess of a T score of 70 were twice as frequent as in the test norms. Also in relation to his control groups the seminary group had the highest percentage of abnormal scales. The seminary group was unique in its adjustment in six or seven of the nine scales. Their differences were significant at the 1 per cent level. The Masculine-Feminine Scale showed the most divergence for the seminarians. In descending order of magnitude followed the Manic, Schizophrenic, Hypochondriasis, Depression and Paranoia Scales. From this study Bier concludes there are genuine occupational differences in adjustment. He goes on to state that this adjustment, as represented by entry into the priesthood may be as good for seminarians as other norms are for the general population. This may be so, but Bier cannot draw such a conclusion from this study because he does not know how many seminarians will become successful priests. It would be worthwhile to follow them over a period of years and find out.

In a more restricted study done by Kelly, an effort was made to evaluate the affective adjustment of Catholic seminarians. The test used was the Rorschach. Comparisons were made against the Bernreuter and faculty ratings of adjustment.

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The doubtful reliability of the Bernreuter and variability of faculty ratings leaves much to be desired by way of criteria for comparison. The tests were given to seventeen high school and nineteen college religious candidates. The groups were equated for intelligence on the California Test of Mental Maturity. The Rorschach factors considered representative of affective adjustment were percentage of responses to the last three cards, inner balance of color responses (C, CF, FC), experience balance, presence or absence of FK and a weighting of the content of color responses. This represented an attempt to partial out sensitivity to emotionally toned stimuli and evaluate the subjects manner of handling it in order to measure his ability and success in establishing rapport with others. This data was quantified by the development of an adjustment check list. The author felt his check list correlated well with faculty ratings and could be used as a measure of psychological fitness for the religious life. He was also of the opinion that this technique could be extended to other areas of the Rorschach. The study is of particular interest in that the same projective test and a similar technique of quantification was used as is contemplated in this investigation. The results afford some confidence in the feasibility of such a procedure.

Summary of Reviews

The findings of the research reviewed offer some hypotheses concerning the personality pattern of seminarians. It appears that ministers are more passive and conforming in their approach to life situations. When aggressive feelings are aroused, they do not find direct expression, but find more subtle outlets in passive resistiveness. There may likewise be a stronger need to lean on others. There is some evidence for a stronger superego with a possibly greater rigidity. This superego function implies a greater concern with problems of good and evil. In regard to psychosexual development, there is the possibility of some confusion in psychosexual role with a tendency toward a more feminine orientation. In his contacts with other people and his environment, the seminarian is inclined to be shy and retiring and to be more content when left to himself. It will be worthwhile to see to what extent these findings are verified by the present study.

There are several other observations to be made from the research done in this area. There seems to be room for improvement in research instruments. The questionnaire is a very popular research tool. It undoubtedly has its value, but its susceptibility to "halo effect" and personal bias is well known. Personality scales such as the Bernreuter also contain many hazards. They are easily distorted by the

subject and contain no check on the frankness with which they were done. Another popular technique is the use of faculty ratings or expert opinion. The practice of devising arbitrary criteria for the good minister and then attempting to find an instrument that will detect it has certain disadvantages. A more empirical approach of studying "successful" ministers with a good instrument with a view to establishing criteria on this basis would probably be more productive.

The scarcity of research in the ministerial profession is unmistakably clear. However, this unfortunate situation has not gone unnoticed by religious leaders. Invariably when discussing this study with religious leaders, they would express the need for this kind of investigation. One of the major reasons why it is not being done is the urgency of processing and training those entering a religious career. Dr. M. O. Williams of the Methodist Board of Missions points up this situation by writing, "We are so busy trying to secure information and to make correct judgments regarding candidates, that I fear we have all too little time to perform a research job on the data being accumulated."²

Generally speaking, it seems that theologians have made little use of the methods of cooperative inquiry as developed

² M. O. Williams, Personal communication.

by the scientific worker. Boisen, in a footnote to one of his articles, has summed up the situation very well. He writes:

This situation is reflected in the paucity of the journals in the field of religion which can lay claim to scientific standing. In spite of the size of the professional group concerned, there are today hardly more than ten such journals published in this country, an interesting contrast to the psychiatric profession with its 4,000 members and its twenty journals. More than that, in the journals we do have, empirical studies of human nature and of religious experience are conspicuous by their absence. Thus in the Journal of Religion for the 14 years from 1931 through 1944 there were 283 articles, of which only 8 were empirical studies of religious experience and only five others made use of empirical studies by other workers. Many of the articles represented careful documentary research, but most of them represented merely unchecked observation and reflection. In the Review of Religion for its first nine years there were 102 articles of which none was empirical in the sense that it made use of the methods of science to study living religious experience. Religious Education for the seven years from 1936 to 1943 contained 200 articles, most of which dealt with contemporary Christianity, but only 20 of them were quantitative studies or attempts to give an exact account of the present status or the historical development of some clearly defined and limited situation, group, or institution. The recent advent of the Journal of Pastoral Care and of Pastoral Psychology has improved the situation but it is still far from satisfactory. (9:216)

The lack of time is not the only reason for the paucity of research. There are many emotional factors which provide effective barriers to scientific research. The ministry has always been an occupation surrounded by a great deal of mystery. This air of "sacredness" has been a formidable obstacle to research in this area. Particularly is this true regarding personality. Much of this centers in the feeling

of a "divine call" to the ministry which is unique to this profession. Many religious leaders feel that God has chosen His workers and to question their suitability is to question the wisdom of God. Consequently, personal motivations for religious work go unquestioned. Woodrooffe, in a recent article, summarizes it very well. He writes:

Even among the most Protestant-minded, who claim not to differentiate between the sanctity of the ministry and other socially useful occupations, a little aura of mystery and holiness surrounds the clerical profession which makes us hesitant to put it under the control of a scientific procedure.
(129:23)

CHAPTER III

METHODOLOGY AND PROCEDURE

Introduction

In the past twenty-five years religious leaders have become increasingly aware of the need for establishing appropriate criteria for selecting future ministers. They have turned to psychological tests as one means of fulfilling this need. There is also an awareness that not too much is known about why a person chooses the ministry as a life work. The pressing need for such information has led to the initiation of this study.

The Sample

Theology students. The sample for this study consisted of fifty-five graduate theology students from three Protestant midwestern seminaries. These three seminaries may be considered to represent somewhat the middle ground of a continuum between "fundamentalism" and "liberalism." The graduate school of theology at Anderson College, Anderson, Indiana, represents primarily the Church of God denomination which maintains its central headquarters here. This school may be considered to be the most fundamental of the three in its

views. It is not, however, to be confused with the Pentecostal group by the same name which would undoubtedly be considered by most to be much more conservative in its views. Although the graduate school is open to students of other denominations, it consists primarily of students of its own movement.

The second graduate seminary was at Oberlin College, Oberlin, Ohio. This school is non-denominational and consisted of students from many denominations. Theologically, it probably occupies a middle position between the other two.

The third group in the sample was drawn from the University of Chicago. Here there are actually three seminaries with some classes being attended by students from all three schools. Theologically, this is likely the most liberal of the three.

The denominations represented by the sample are tabulated in Table I. Only thirteen Protestant denominations are represented in the sample. The proportional representation of these thirteen denominations in the sample is not the same as their proportional representation in Protestantism as a whole. Difficulties in securing volunteers have contributed to this bias. Analysis of the test data obtained from this sample indicated considerable homogeneity among the various denominations. It would be of value to know if there are differences in personality patterns between ministers in different denominations. To the author's

TABLE I
DENOMINATIONAL AFFILIATION
THEOLOGY STUDENTS

Denominational Affiliation	Number
Church of God	15
Methodist	11
Congregational	9
Baptist	5
Presbyterian	4
Lutheran	3
Episcopal	2
Covenant	1
Evangelical and Reformed	1
Evangelical United Brethren	1
Mennonite	1
Nazarene	1
Unitarian	1
Total	55

knowledge, no study such as this has been done. Since this study is concerned with Protestant ministers as a whole, the representation of many denominations was felt to be justified.

An analysis of the group on the basis of age reveals the distribution presented in Table II. The range of ages extends from 21 years through 61 years with the mean falling at 28 years of age. The distribution is markedly skewed as would be expected. Selective factors operate to eliminate graduate students as they do undergraduates. The median age is just under 25 years which provides some measure of the degree of skewness present. All but ten students are married.

The student who pursues his training in graduate school usually acquires some practical experience in his field before he graduates. If the pressures of circumstances become too great, a student may drop out of school and secure employment in his field with what training he has. In some cases it is several years before his interrupted schooling is continued. It would be expected that the range of experience would be wide. Table III summarizes this information. There are no entries in the intervals between 17 and 24 years or between 26 and 36 years. Four students did not indicate their experience on the questionnaire. Many theology students had, as yet, gained no practical experience. A few students had a great many years of experience, which

TABLE II
DISTRIBUTION OF AGES
THEOLOGY STUDENTS

Age	Number
21 - 25	28
26 - 30	14
31 - 35	5
36 - 40	4
41 - 45	0
46 - 50	3
51 - 55	0
56 - 60	0
61 - 65	1
Total M=28	55

TABLE III
YEARS OF EXPERIENCE
THEOLOGY STUDENTS

Years	Number
0 - 2	29
3 - 5	10
6 - 8	4
9 - 11	2
12 - 14	1
15 - 17	2
24 - 26	2
36 - 38	1
Total M=4.7	51

tended to raise the mean. The median falls between one and a half and two years. It is probably easier for ministers to return to graduate school after many years in the ministry than it is for individuals in other occupations. A common pattern is for ministers to hold a pastorate while attending school. The flexibility and irregularity of their hours makes it possible to fit their work into a class schedule.

Some women enter the Protestant ministry, but the vast majority are men. It is quite conceivable that the motivations for women entering religious work are different from those of men. With this possibility in mind, the sample was limited to males.

Physical science students. Physical science students were chosen for comparison because, in their field, they deal largely with inanimate objects rather than with people. On this basis they seemed to offer the greatest contrast to divinity students. If there are testable personality differences between students entering the ministry and students entering other vocations, it seems logical to believe they would be revealed by a comparison such as this.

Similar criteria were used for selecting physical science students as were used for selecting theology students. All were graduate students, Protestant and male. Unfortunately, the physical science students did not indicate their denominational affiliation, so they could not be compared on this

variable. These students were all selected from Michigan State University. All of the science departments were contacted, and the department heads were very cooperative. In departments where graduate seminars existed, the instructor offered to set aside a class period for testing. The project was presented to the students, and they were told that if they did not wish to participate, they would not be required to attend that class session. Group psychological forces were strong enough to produce nearly 100 per cent cooperation. The departments providing these semi-captive audiences were Agricultural Engineering, Chemical Engineering and Electrical Engineering. Volunteers from the remaining departments were solicited by letter, a copy of which is found in Appendix A. Several testing periods were arranged, and a self-addressed card was enclosed in the letter on which the student could indicate his preference. Table IV contains a summary of the results of this solicitation. Several subjects were eliminated from the sample because they were not Protestants or because their tests were not scorable. Table V presents the final composition of the sample including subjects secured for testing by mail and subjects tested in seminar classes.

The ages of the physical science subjects have been tabulated and presented in Table VI. The range of ages is from 21 to 49 years. The median of this distribution is 28 years which is the same as the mean of the theology students.



TABLE IV
RESULTS OF MAIL SURVEY
PHYSICAL SCIENCE STUDENTS

Department	Contacts	Replies	Accepted
Chemistry	66	28	16
Civil Engineering	18	5	2
Geology	3	0	0
Mechanical Engineering	14	7	0
Physics - Mathematics	35	11	4
Total	136	51	22

TABLE V
COMPOSITION OF PHYSICAL SCIENCE SAMPLE

Department	Number
Agricultural Engineers	12
Chemists	16
Chemical Engineers	6
Electrical Engineers	9
Physics - Mathematics	2
Total	45

TABLE VI
DISTRIBUTION OF AGES
PHYSICAL SCIENCE STUDENTS

Age	Number
21 - 25	17
26 - 30	9
31 - 35	11
36 - 40	4
41 - 45	3
46 - 50	1
Total M=29.5	45

There is a tendency for the theology students to fall at the extremes of the distribution with several of them falling in the older age brackets. It was noted that many of the older students in the physical science group were agricultural engineers.

All but five physical science students answered the question about work experience. The results are presented in Table VII. The average years of experience for the two groups is nearly the same, but the range for the theology students is wider. This is a further reflection of the few older and more experienced theology students in graduate school. Among the physical science students the agricultural engineers, as a rule, had more work experience before entering graduate school.

Group Rorschach

The major diagnostic instrument in this study was the Group Rorschach. This test differs from the usual psychometric instrument in that the subject is presented with ambiguous stimuli and asked to respond to them. The subject projects his own needs and motivations onto the stimuli, and these are reflected in his responses. By means of this perceptual process, it is possible to gain some understanding of the functioning of the individual personality.

Scoring of the Group Rorschach is exceedingly complex and differs from that of psychometric tests in many respects. It

TABLE VII
 WORK EXPERIENCE
 PHYSICAL SCIENCE STUDENTS

Years	Number
0 - 2	23
3 - 5	4
6 - 8	3
9 - 11	3
12 - 14	4
15 - 17	2
18 - 20	1
Total M=4.5	40

provides a semi-quantitative presentation of the test data. There are three scoring systems most widely used. The system devised by Bruno Klopfer was used in this study.

Reliability and validity. Before the Group Rorschach can be considered, it is first necessary to mention reliability and validity of the Individual Rorschach. The structure of the test raises many statistical problems making it difficult to establish reliability and validity with accuracy. In a practical setting, however, the test has been found more useful in evaluating individual personality than other instruments where reliability and validity were more firmly established. The literature abounds with comparisons of Rorschach interpretations with case records, teacher's reports, psychoanalytic records and other information which attests to the "working validity" of the test.

It has been intimated that the changes in administration of the Group Rorschach have invalidated the use of the norms established for the individual test. For this reason establishment of reliability and validity of the group test has progressed along two lines: comparison of the group test with the individual test, and independent validation studies with the Group Rorschach.

Max Hertzman (47) conducted comparative studies between the Group and Individual Rorschach. The tests were administered to different groups in the following combinations: Individual-

Group, Group-Individual, Group-Group, and Individual-Individual. Hertzman found striking similarities between the two tests and felt that the differences were more a function of repetition than of the different methods of obtaining the data. In comparing the "signs" of adjustment of the two tests, he found that they compared favorably. In fact, he felt that the signs showing the greatest differences were not the most important ones. In summarizing his conclusions the author states, "The relationship between the two tests with respect to a sign approach would indicate the feasibility of the employment of the Group Test for screening purposes." (47:107)

Ann Roe (96), in comparing psychologists and anthropologists, gave some of the subjects both forms of the Rorschach. In reporting the results of the Group Test, she makes this observation.

The research scientists studied individually on this project show precisely the differences between fields that the subjects reported here do. This may be considered at least inferential evidence that the Group Rorschach is enough like the Individual Rorschach that the major details of treatment can be the same. (96:224)

In 1940 Ruth Munroe (79) subjected the Group Rorschach to independent validation at Sarah Lawrence College. For several years the test was given to the entering freshman class. Statistical results showed a "strong relationship" between level of adjustment on the test and either referral to the school psychiatrist or much discussion by the faculty.



In regard to academic standing, it was found that 34 out of 36 failing students were rated as poorly adjusted on the Group Rorschach. This is even more striking in view of the fact that as many of this failing group were very bright students as less intelligent.

The data presented indicates that the Group Rorschach is not only a valid and reliable instrument in its own right, but the norms of the Individual Test are essentially applicable to the Group Test. Although the Group Test is not as refined and discriminating an instrument as the Individual Rorschach, there seems to be little doubt of its value as a screening device.

Munroe Inspection Technique

This is essentially a check list of the major scoring variations, quantitative and qualitative, commonly used in Rorschach interpretation. It provides a convenient method of organizing and quantifying the Rorschach data. Another advantage is that individual norms are inherent in the check list. These norms, of course, are in terms of the Klopfer scoring system. An entry is made for each item on the list where the subjects performance deviates from the normal range. In determining what is a significant deviation, the check list takes into consideration the total number of responses given. In other words, norms differ for different ranges of responses. If a subjects performance deviates

significantly, but not to an extreme degree, one check is entered. If the deviation is extreme, two or even three checks are entered. Usually the direction of the deviation is indicated by the sign used. Plus is used for a deviation in the direction of overemphasis, minus for underemphasis. Qualitative discrepancies are indicated by other symbols (B, V, U, etc.). For a more thorough treatise of the check list items, the reader is referred to articles by Munroe (79, 80).

The items on the check list are grouped according to the major aspects of approach to the cards such as color, movement, shading, etc. Counting up the number of entries on the check list provides a quantitative score for "adjustment" which apparently corresponds well with the clinical judgment of the Rorschach worker and with external criteria. This quantitative measure of adjustment or Inspection Technique Score (ITS), as Munroe prefers to call it, should never be used alone in predicting good or poor adjustment. Persons with poor adjustment scores are not necessarily failures. Munroe (2:103), however, suggests that success for these people is much more dependent on favorable circumstances than is the case for persons with good adjustment scores. It adds a new and useful dimension in advising individuals who appear to be normal.

Employment of the check list affords considerable saving in time. In quantifying the data on the check list, much

valuable qualitative material is lost. For screening purposes it is admirably suited to a quick evaluation of the major aspects of the projective material.

For compactness and convenience of reference, the check list tabulation sheets for the sub-groups within each sample have been placed in the Appendix.³ In addition, master scoring sheets for the theology students and physical science students were compiled which contain the total number of entries for each item for each total sample. On the tabulation sheets the total number of entries for each case can be secured by reading down the columns. The total number of entries for each check list item can be secured by reading across the rows.

In addition to the categories on the check list, two classifications devised specifically for this study have proven to be of value. They involve a classification of qualitative aspects of Rorschach responses. These categories are presented here with a brief description of the criteria used in defining them.

Sexual role. Included in this category are qualitative responses indicating the subject is having difficulty identifying his sexual role. Criteria for judging these responses were taken from Rorschach literature (84, 104) and a test of Masculinity-Femininity by Terman and Miles

(118:512-514) which employs a set of ink blots. Difficulty in establishing psychosexual role may range from confusion and ambivalence to feminine identification. Confusion and ambivalence is revealed in responses where the sex of human figures is concealed beneath a mantle or cloak. It may also be reflected in an inability to decide on the sex of a human figure. A good example is Card III where the subject is impressed with the lower projection on the human figures suggesting male genitals, but is also attracted by the protrusions in the breast area. Faced with this dilemma he verbalizes his inability to decide on their sex. Feminine identification can reveal itself in many ways. Responses showing an interest in feminine objects such as corset, dress, embroidery work, etc., are good examples. It may also be manifested in such feminine activities as cooking, house-keeping, dress designing, etc. More directly, it may appear in a feminine identification of human figures usually seen as male. Clinical judgment about entries in this category are admittedly subject to individual variability. However, extreme caution was used, and no entry was made unless there was clear evidence shown in many responses throughout the record that difficulty existed in this area.

Hostility. The content of responses also provides an excellent medium for expressing hostility. Themes of fighting and violence are a direct expression of this impulse. Responses portraying the results of violence such as "a



squashed bug," "animal split open," "dripping blood" point in this same direction. This general attitude of aggression is also implicit in responses of instruments of violence such as "spear," "bullet," "atomic bomb," etc. Many evidences of hostility were represented in a given record before an entry was made in this category.

Three ratios designed to reveal erlebnistyp were also included. These ratios were used as presented by Klopfer. (63:372-375) They must be interpreted with caution since their meanings are difficult to interpret and they have been difficult to validate. It was felt that they might contribute something of value so they were included.

M:Sum C. This is a ratio between human movement and color. A ratio of 2:1 is considered by Klopfer to be the optimum limits. Where this was exceeded in the direction of human movement a minus entry was made to signify introversive tendencies. If this balance was exceeded by color responses, a plus entry was made to indicate extratensive tendencies.

FM+m:Fc+c+C'. This ratio represents the relationship between potential introversial tendencies and potential extratensive tendencies. Where the emphasis was on movement, a minus entry was made. Where the emphasis was on achromatic responses, a plus entry was made. According to Klopfer, if this and the above ratio point in the same direction, they confirm each other. If they are at variance, the subject may be experiencing conflict or may be in a period of transition.

Percentage of responses to last three cards. This provides an indication of general responsiveness to emotional stimuli from the environment. Some individuals' responses decrease on these color cards. Some remain about the same while others become more numerous. Fewer than 30 per cent of the responses on the last three cards was represented by a minus entry. Over 40 per cent received a plus entry and over 50 per cent received a double plus entry.

The data for these five categories have been included with the check list items in Appendix B.

Study of Values

A test of this type was included because a value system is such an integral part of the ministerial profession. The Allport-Vernon Study of Values contains a religious scale and normative data are provided for religious workers. The Study of Values⁴ attempts to measure the relative importance of six basic motives in personality: the Theoretical, Economic, Social, Political, and Religious. These classifications are based directly on Spranger's Types of Men (111). Spranger holds the view that people's personalities are best known through a study of their values or evaluative attitudes. Actually, his theory of personality is quite complimentary

⁴

See Appendix C.

in that no allowance is made for the "baser" drives which are not permitted to reach consciousness. This weakness in Spranger's theory places a serious limitation on this scale. Within the areas represented, however, it seems to have merit.

The test consists of a number of questions based on a variety of familiar situations to which two alternative answers in Part I, and four alternative answers in Part II are provided. The subject records his preferences by a numerical weighing of each alternative. A higher weighing of one alternative is obtained at the expense of the others making the scale scores interdependent.

Due to the interdependence of the scales, the test gives a measure only of the relative strength of the six values for a given individual or group. Because of this a strict comparison cannot be made between groups of the actual strength of a value.

The Study of Values is designed for college students or adults with some college, or equivalent, education. The revised form of the test was standardized on 1,816 college students, 851 males and 965 females. Norms are provided for men, women and the two groups combined. Specialized norms are also provided for specially trained groups. Among these are clergymen and theology students.

Reliability and validity. Reliability of the test was determined by several methods. By the split half method the

mean reliability coefficient using a z transformation was .82 for the Revised Form. Repeat reliability is available on only a small group, but the correlations appear to be satisfactory.

Validation was obtained from an examination of the scores of different occupational groups whose characteristics were known. In nearly all cases the high and low scores corresponded well with prior expectations.

Personal History Blank

A very brief data sheet⁵ was included with the test battery. It is not extensive and was designed primarily to provide some background data about each subject. The items were general enough not to reveal the identity of the subject and could be answered relevantly by both theology and physical science students.

Testing and Scoring Procedures

Before testing was begun, a brief description of the purpose of the study was given, and the subjects were asked to fill out the personal data sheets. When this was⁶ completed, instructions were given for the Group Rorschach. These were not read verbatim to the subjects but merely

⁵ See Appendix D.

⁶ See Appendix E.



served as a guide. Any questions were answered before the test began, but if a subject experienced difficulty during administration of the test, he was given assistance. After the instructions were understood each blot, reproduced on Kodachrome slides, was projected onto the screen for three minutes. The subjects viewed the slides together, each subject writing his own responses to the blots in a booklet⁷ provided for him. The room was semi-darkened to insure a sharp image on the screen, yet allow sufficient light for writing. There were approximately fifteen subjects in each group tested, making it possible to seat all of them nearly directly in front of the screen. This eliminated possible distortions in shading and proportion which may have occurred from a side view. After the series was completed, the instructions were given for the inquiry. Each blot was again shown on the screen and remained there until all subjects had completed their elaborations of their original responses.

Following the Group Rorschach the Allport-Vernon Study of Values was administered. It is a self-administering test and can be completed in 20 or 30 minutes. The entire testing period did not extend over two hours.

After the tests had been administered to all subjects, they were scored. The record blank developed by Klopfer and

Davidson⁸ was used to tabulate the Group Rorschach data. The Group Rorschachs were checked by a Rorschach expert to insure accuracy and consistency in scoring. Deviant items were then entered on the Munroe Check List and finally all check list entries were tabulated on a research form.⁹ The Allport-Vernon Study of Values was then scored and the data arranged in tables¹⁰ for easy reference.

Statistical Procedures

Group Rorschach. The structure and scoring of the Rorschach test make the selection of appropriate statistical procedures a matter of great care. The fact that Rorschach scores can be added, averaged, distributed, etc., has caused many investigators to use conventional mental test statistics without much questioning of their appropriateness. The application of a given procedure may be mathematically correct, but often the choice of procedures is arbitrarily made by the investigator. Particularly is this true of tests of significant differences. Different methods will yield different results because they make different assumptions regarding the data. Cronbach (21:405) offers three reasons why different techniques produce greater differences in results

⁸ See Appendix G.

⁹ See Appendix B.

¹⁰ See Appendix H.

in Rorschach data. These are: the skewness of Rorschach scores, the complications introduced by ratio scores, and the dependence of Rorschach scores on the total number of responses.

The fact that many significant Rorschach scores give skewed distributions is reported repeatedly in the literature. Under these conditions the mean and median of the distribution are not the same. These statistics are also based on the addition of scores. Whenever addition of scores is done, equality of numerical distance between scores is assumed. There is no way of demonstrating the equality of units unless one has some knowledge of the true distribution of the trait in question. Clinical experience with the Rorschach repeatedly reveals the inequality of units for Rorschach scores. A better procedure is to use techniques which are based on a counting of frequencies. They make no assumptions about scale units. In attempting to test the significance of a difference between two groups, the best method is to make a cut at some score, and compare the number of cases in each group falling beyond the cut. The value of the Munroe Check List is that it establishes these cutting points. The differences can then be tested by the chi square method. This is the procedure utilized in this study.

One of the assumptions underlying the use of ratios is that patterns of scores yielding equal ratios are psychologically equal. In Rorschach scoring this assumption is not always

defensible. A simple example of the ratio of whole (W) responses to the total number of responses (R) will illustrate the point. A person with 2W out of 10R would be low in whole tendency, since it is very easy to find two wholes in the cards. On the other hand, it would take a great deal of ability to find 20W in 100 or even more responses. When the number of responses rises above forty, W seems to rise very slowly. If the regression of W on R were linear and closely approximated a constant ratio, the ratio could readily be treated as a score. This is not the case, however, and the ratio is simply a function of the denominator R. It becomes obvious, then, that numerically equal ratios are not psychologically equal. Munroe is aware of this factor and repeatedly indicates in her check list that the significance of a particular ratio depends on R. This factor is somewhat compensated for in the structure of the check list. Again the Munroe Check List and the chi-square test became the method of choice.

Study of values. The Allport-Vernon Study of Values was analyzed for significant patterns of scores. Due to the fact that the test scales are interdependent, it is difficult to support the assumption that the various scale scores are normally distributed. For this reason the usual tests of significant differences cannot be used. A procedure developed by White (127:33-41) was used. This involved combining the two groups into one distribution and ranking

them, with a rank of one given to the largest numerical score. The two samples were then separated and tested for a significant difference between ranks. The test of significance is the z score. This method has the advantage of making no assumptions of normal distribution of scores.

Interpretive Procedures

Rorschach has described the various strata of interpretive information for his test. Broadly, he distinguishes three such strata:

1. The interpretation of the quantitative distribution of the scoring categories.
2. Certain qualitative characteristics of the responses.
3. Psychoanalytic inferences.

The first two strata have developed into what is now the Rorschach method. At the present time other schools of psychology are sometimes substituted for psychoanalytic theory. In testing the hypotheses of this study, the author utilized all three levels of interpretation as stated above.

Summary

The sample of theology students was analyzed in terms of denominational affiliation, age and practical experience. The sample of physical science students was analyzed on the basis of field of specialization, age and practical experience. The two groups were compared on the basis of these criteria.

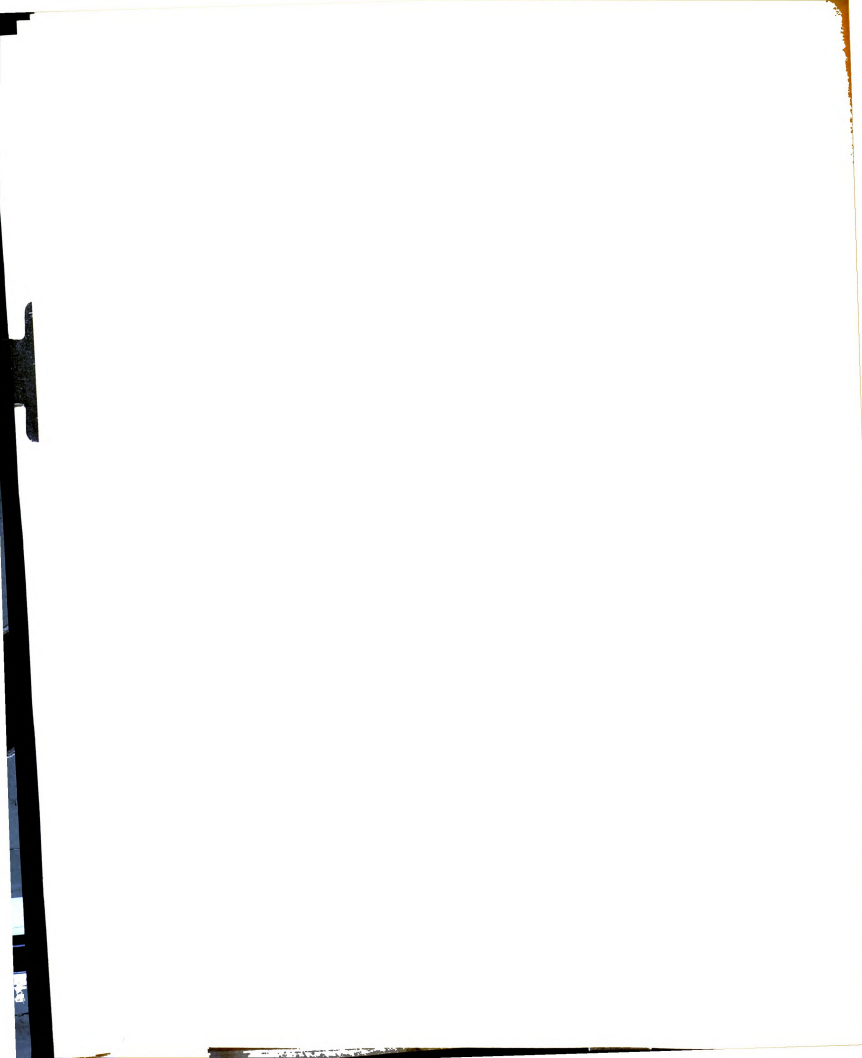
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The psychological instruments used in the study were explained together with the Munroe Check List. This latter device was offered as a convenient means of organizing and quantifying the Group Rorschach data. Additional check list items utilized for this study were also presented.

A brief description was given of the testing and scoring procedures used.

There were important statistical problems which were discussed. The statistical procedures used to analyze the data were presented.

The various levels of interpretive information utilized in testing the hypotheses of this study were described.



CHAPTER IV

ANALYSIS OF THE DATA

In this and the following chapter much will be said about "adjustment." This is a word which has many interpretations. To most people there is the connotation of conformity to social and cultural mores. To other people "adjustment" implies the development and realization of the potentialities of the ego or self. Inner emotional needs and satisfactions also become important. "Adjustment" then becomes significant in terms of the individual's interaction with and handling of his own inner needs and feelings. For purposes of investigation, however, it is sometimes helpful to make a distinction between "inner adjustment" and "social adjustment." "Inner adjustment" implies a relative lack of stress and strain from within. "Social adjustment" implies the person's ability to get along in society, many times in spite of the presence of problems. It is to the area of "inner adjustment" that the psychological measures used in this study apply. Any psychologist soon becomes aware that psychological instruments are not perfectly correlated with the person's actual behavior in life situations. They give some indication of the emotional price which must be paid for

"social adjustment." It is not too uncommon for a subject who is having a difficult time in terms of inner adjustment to get along adequately in society, at least to the extent of holding a good professional position. Consequently, caution must be used in relying on tests alone as indicators of "social adjustment." The extent to which emotional problems can be tolerated is much greater than is often realized.

In the discussion which follows of the emotional needs, defensive mechanisms and patterns of adjustment of theology students, it should be kept in mind that this study is concerned with normal people, at least, in the social sense of the word. There are many ways of meeting life situations, all of them with certain advantages and disadvantages. Difficulties arise when an individual does not have a sufficient number of adjustment mechanisms at hand, or uses them inappropriately, or carries them to unrealistic extremes. In other words, a discussion of these factors is not meant to imply pathology, although pathology may exist in individual cases.

The hypotheses set forth in this study pertain to several aspects of the personality structure of Protestant theology students. Because they are somewhat diverse, it was felt that the results pertaining to each one should be discussed as they are presented. Consequently, presentation and discussion are combined in a single chapter.

Comparison for Personality Differences

The first hypothesis stated that there were testable Personality factors which distinguished divinity students from physical science students. This proposition was tested by comparing the two groups on the check list items. Chi square was used to test for significant differences between the two groups on the number of entries made for each check list item. Due to the smallness of the theoretical frequencies, Yates' (34:278) correction for continuity was applied. On items where single, double and triple entries were made, each type of entry was tested for significance. All entries were then combined, and a chi square was computed for the total. This procedure was followed for plus and minus deviations. Where only a check mark or a qualitative (B, V, U, etc.) entry was made, the task was much simpler. Those items which were significant are presented in Table VIII.

At + Sex. An entry was made in the check list for this item if two anatomy or sex responses were given in especially significant locations or if three or four moderately significant responses were given. Anatomy responses included those with a definite sexual connotation such as "hips," "buttocks," etc. Anatomy responses reflecting a fear of harm or threat to body integrity were also included. Responses of male or female Genitals were classified as sex responses. Most of

TABLE VIII
SIGNIFICANT CHECK LIST ITEMS

	Number of Entries		P
	Theology	Science	
At + Sex (all +)	19	7	.06
FK, Fc (-)	11	18	.05
FK, Fc (all -)	26	34	.01
CF (-)	8	17	.02
Sexual Role (✓)	18	4	.01
Hostility (✓)	17	5	.04
Number of R	M=31.40	M=26.08	.02

the responses were sexual responses, however, and indicated disturbance in this area.

Although this item just failed to meet the minimum requirements of significance at the 5 per cent level of confidence, it was retained as a discriminating item. This decision was based upon the fact that the category Sexual Role was highly discriminating and the two categories are probably interrelated. Theology students showed more evidence of disturbance in the sexual area than physical science students, and it may be that further research on another sample will show this item to be more discriminating than is evident in this investigation.

Sexual Role. This classification was designed to reveal disturbances in establishing psychosexual role. Criteria for judging responses were set forth in Chapter III. The tendency was to be conservative in making entries for this item. It was found to be discriminating at the 1 per cent level of confidence. Theology students experienced greater difficulty establishing their psychosexual role and manifested a more passive, feminine orientation.

FK, Fc. Minus entries on this item are related to the number of well perceived color responses (FC) given. If there was a lack of FC as well as a lack of texture (Fc) responses, a double minus entry was made. If Fc was inadequate but color was satisfactory, a single minus entry was made. Norms for the Munroe Check List require that two



Fc and two FC responses be given as a minimum. Comparing those subjects who showed inadequate Fc but adequate FC, the results were significant at the 5 per cent level of confidence with physical science students receiving the greater number of entries. When subjects receiving only double minus entries were compared, the difference was not significant. When these two groups were combined so that all minus entries for texture were considered, the difference was significant at the 1 per cent level of confidence. The physical science students showed the most serious lack in texture responses.

The significance of texture responses has not been established with certainty. According to Klopfer (63) the use of texture is an expression of awareness of affectional needs. Refined texture responses reflect the attributes of tact and social awareness. The development of these attributes is essential for the establishment of deep and meaningful object relations and occurs only where basic security needs have been reasonably well satisfied.

Although this viewpoint is not as well established as the meaning of other scoring categories, it can at least be said that texture responses probably indicate higher intellectual capacities and greater flexibility since these attributes are necessary in the utilization of the shading aspects of the blot in the production of a response.

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CF. It is desirable to have at least one CF response and possibly more depending on how many FC responses are present in a record. A minus entry was made if there were no CF responses or if a very hesitant CF was given. The difference obtained between physical science and theology students was significant at the 2 per cent level of confidence. Physical science students showed less emotional spontaneity when compared with theology students.

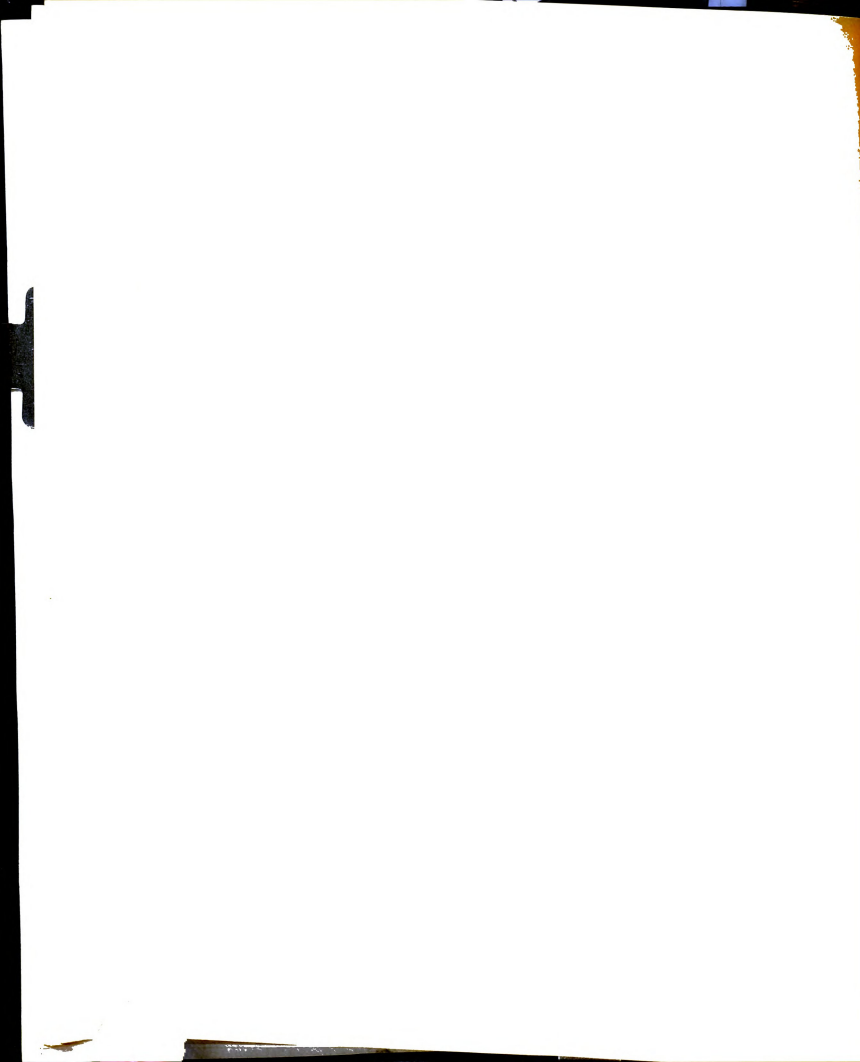
Hostility. This was a specially devised category which proved capable of discriminating between theology and physical science students at the 4 per cent level of confidence. More theology students showed evidence of hostility in the content of their responses.

[Number of Responses (R). Theology students obtained a mean R of 31.40 with a standard deviation of 9.15. The mean R for physical science students was 26.08 with a standard deviation of 11.39. It was assumed that R approximated a normal distribution, and Fisher's t test was employed to see if a significant difference existed between the means. The t test showed a significant difference at the 2 per cent level of confidence.] Statistically this item showed an ability to discriminate between the two groups. Interpretively, however, it is doubtful if much meaning can be attached to this difference. Klopfer considers a range of from 20 to 45 responses to be the normal expectation. It may be that theology students manifest a little more verbal



productivity than the physical science students. Both groups fell within the average range with the physical science students showing a little more variability in the number of responses per record.

Expectations were that a greater number of items would be found to discriminate between the two groups. When these expectations were not realized steps were taken to learn why this should be so. A possibility seemed to be the heterogeneity of the physical science group. The sub-groups of physical science students were compared on the check list items by means of chi square. Because some sub-groups contained few subjects, the Chemical Engineers were combined with the Chemists, and the Physics-Mathematics students were combined with the Electrical Engineers. This resulted in a three by two frequency table. This comparison revealed five items which just failed to be significant at the 5 per cent level of confidence. There were also several items where chi square could not be computed because of the smallness of the theoretical frequencies but which suggested possible significant differences. It was not possible to tell with certainty whether these differences would be greater if the sub-samples were larger, but it seems reasonable to believe that this would be the case. It may well be, then, that the difficulty lies with the physical science sample and that the Group Rorschach is actually more discriminating than this study indicated. If a larger



population had been available from which to select the comparative sample, it would have been desirable to use a more specialized field as, for example, Chemistry.

Adjustment Level of Theology and Physical Science Students

Hypothesis two predicts that there is a significant difference in general level of adjustment between physical science and divinity students. The Munroe Check List provides a general level of adjustment score, and this was used to test the hypothesis. This adjustment score is a quantitative measure of general personality integration. It is a very inclusive measure because it is derived from so many psychic areas tapped by the Rorschach. It does not distinguish between overt maladjustment and inner distress. It merely indicates the amount of "disturbance" currently present in the personality as determined by the Group Rorschach Test.

Adjustment scores were tabulated, and a mean score for each group was computed. The theology students obtained a mean score of 9.07 with a standard deviation of 3.77. For the physical science students the mean score was 9.24 with a standard deviation of 4.45. A t score of .202 was obtained which was not significant. The results of the comparison fail to support the hypothesis of a significant difference in adjustment between the two groups.

In terms of general norms, Munroe considers a score of ten or less within normal limits. She also comments that it is doubtful whether subjects with an adjustment score of two or three are significantly better adjusted than those with a score of six or seven. Physical science and theology students tended to get scores which were a little high but nevertheless were within normal limits. Thus it can be said that the general adjustment of these two groups was not only about the same but also was not significantly different from the general population.

Comparison of Value Judgments

Hypothesis three was tested by comparing both groups on the six scales of the Allport-Vernon Study of Values. Specialized norms for the test are given in terms of mean scores. The mean scores for the theology and physical science students in this study are presented in Table IX. To make a comparison of the two groups clearer, these same mean scores are graphically represented in Table X.

The physical science sample contained many engineering students and therefore was compared with the norms given¹¹ for engineering students. Engineering and physical science students scored high on the Theoretical Scale with the

¹¹

See Appendix C, Manual of Directions.

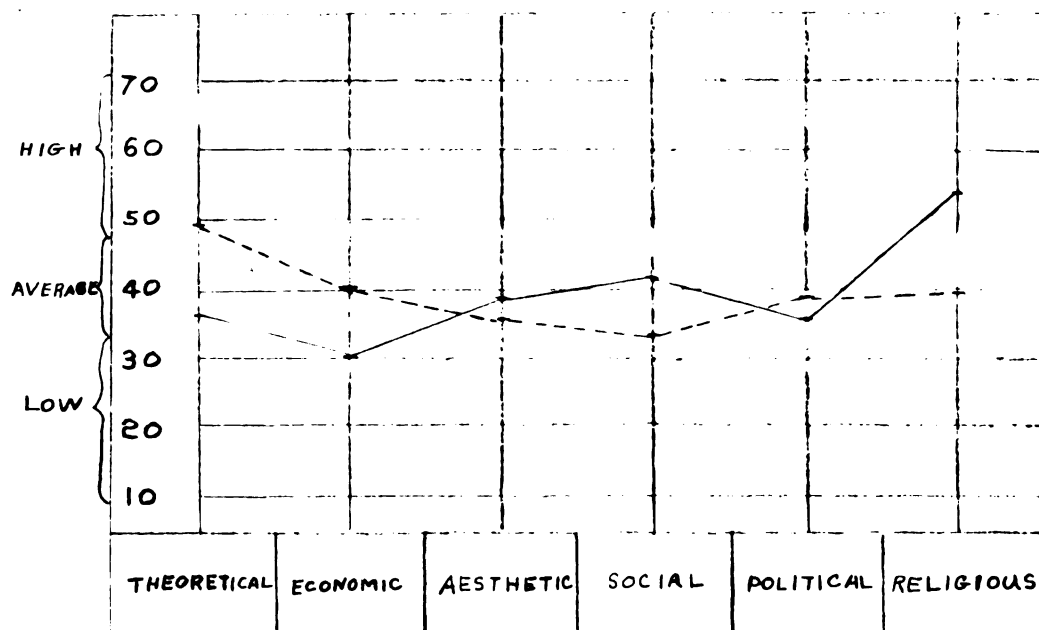


TABLE IX
COMPARISON OF MEAN SCORES
STUDY OF VALUES

Scale	Theology Students Mean	Science Students Mean
Theoretical	37.33	49.36
Economic	30.52	40.47
Aesthetic	38.85	36.98
Social	42.78	33.59
Political	36.74	38.89
Religious	53.06	40.01



TABLE X
 PROFILE OF VALUES
 *MEAN SCORES



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Economic Scale ranked second. An outstanding difference occurred on the Religious Scale. The engineers scored the lowest on this scale, while the physical science students ranked third. The Social Scale was low for both groups.

Theology students compared very favorably with the norms given for both clergymen and theology students. The mean scores were similar and the ranking of the scales was nearly identical. As would be expected, the Religious Scale was the highest and the Economic Scale the lowest.

The problem of the interdependence of scales was discussed in Chapter III. This feature of the test made it difficult to justify the assumption of a normal distribution of scores. Therefore, White's (127) ranking method for determining the significance of the difference between two sets of observations was used to compare the two groups. The results of this comparison are summarized in Table XI. Only two of the six scales were discriminating, and these were at the 5 per cent level of confidence. As would be expected, the Theoretical Scale was significantly higher for the physical science students, and the Religious Scale was significantly higher for the theology students.

From the comparison of the physical science and theology students with the test norms and with each other, it appears that the intellectual process is of great importance to the physical scientist. By this means he attempts to gain "pure objectivity" and to organize facts in a systematic manner.



TABLE XI
COMPARISON OF SAMPLES ON THE
STUDY OF VALUES

Scale	z Score	Significance
Theoretical	2.02	.05
Economic	1.71	not significant
Aesthetic	.48	not significant
Social	1.89	not significant
Political	.92	not significant
Religious	2.24	.05



In order to achieve these ends, emotional involvement must be reduced to a minimum. This finding is probably related to the physical science student's tendency to inhibit the use of color in the Rorschach.

The theology student, on the other hand, places less importance on an objective point of view. He is less interested in facts and more concerned with moral values. This may explain, in part, his lack of interest in, and utilization of, scientific procedures. He directs his efforts, instead, toward finding the ultimate purpose of life and identifying himself with it. Spranger (111:216) indicates that this involves a devaluation of self and submission to whatever higher Power he has found. Psychologically, this correlates with the passivity and feminine orientation reflected in the Group Rorschach.

The evidence from the Allport-Vernon Study of Values indicated that there were differences in value judgments between theology and physical science students.

Clinical Analysis of the Group Rorschach

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The fourth premise of this study was investigated by a clinical analysis of the Group Rorschach data on the theology

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The same premise could have been established for physical science students. Since this study was concerned with theology students, the data on physical science students was considered only secondarily in terms of its importance in understanding the theology students.



students. The process of interpretation consisted of a constant formulation of hypotheses or guesses based on quantitative and qualitative aspects of the test data as represented by the check list entries. As the evidence for a given hypothesis increased, more confidence was placed in it. If evidence to the contrary appeared, the hypothesis was modified or eliminated. Finally, on the basis of the personality picture which emerged, some hypotheses were formulated regarding the manner in which these psychological needs were met in the ministry.

It was rather arbitrarily decided that any check list item where one-third or more of the theology students received an entry would be considered contributory to the group characteristics of theology students. This decision was based partly on the fact that there seemed to be a break at this point in the continuum of percentage of entries with the rest of the items being checked about 25 per cent of the time or less. This decision did not mean that the less frequently checked items were not important. This was merely a means of pointing up those items which were most outstanding. These items are presented in Table XII.

Location. An examination of the choice of location of the responses provided a convenient point of departure. A plus entry was made on the check list if over 50 per cent of the responses given in a record were whole responses. Forty

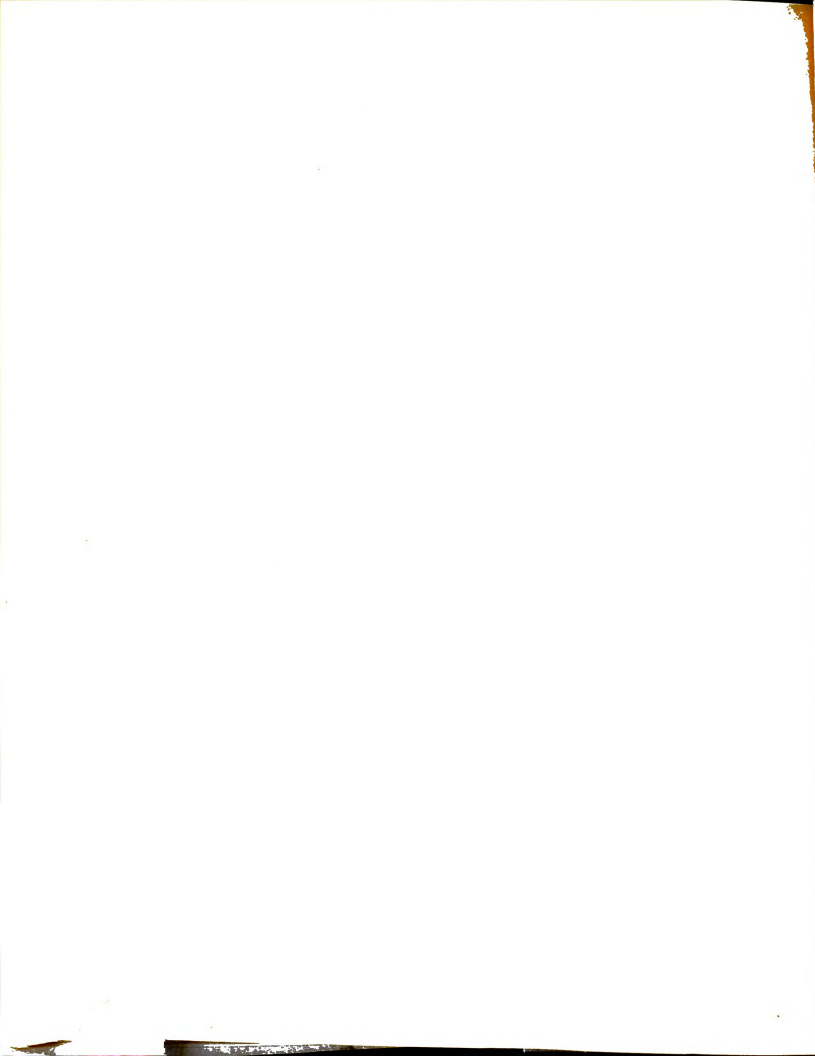
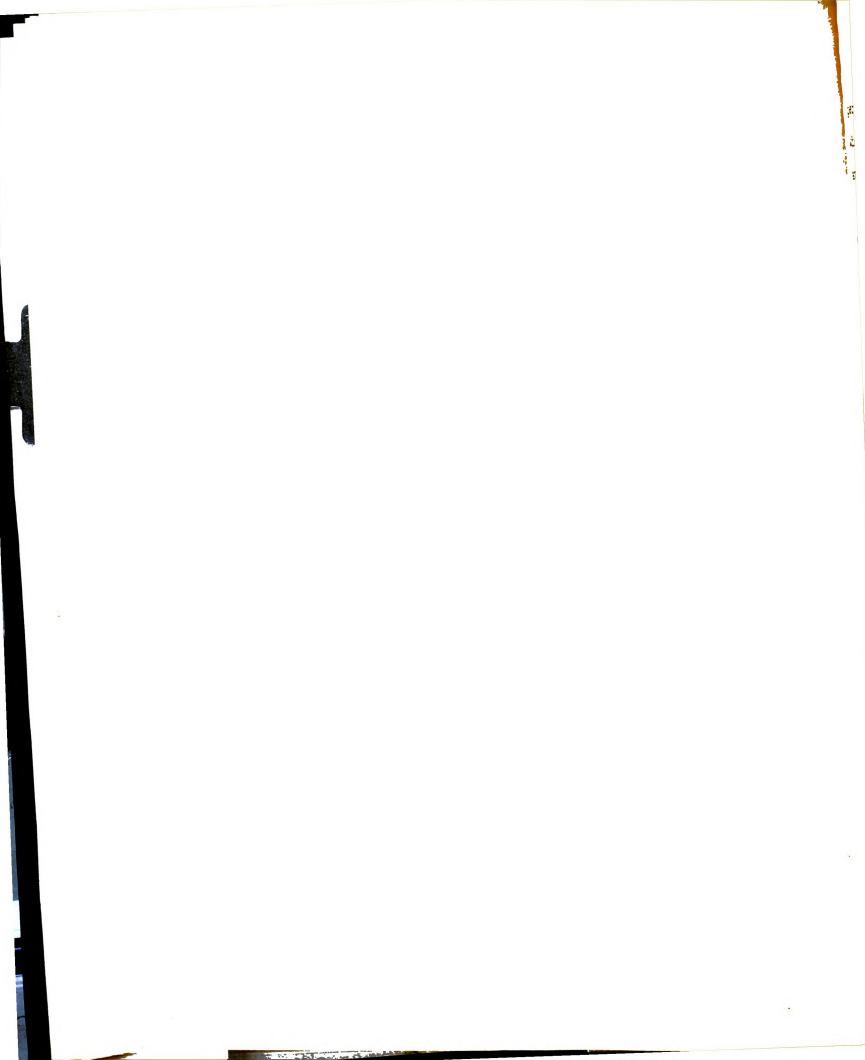


TABLE XII
OUTSTANDING CHECK LIST ITEMS
THEOLOGY STUDENTS

Test Item	Percentage of Sample	Direction of Deviation
W%	40%	+
Dd	44%	+
S	36%	+
At + Sex	34%	+
F%	51%	+
FK, Fc	47%	-
M	31%	-
Color Shock	33%	+
FC	56%	-
CF:FC	33%	+
Color:Movement	31%	-
Sexual Role	33%	+
Hostility	31%	+
M:Sum C	25%	-
FM+m:Fc+c+C'	62%	-
Sum of VIII, IX, X	36%	-



per cent of the theology students showed an overemphasis on whole responses. The form quality of these responses was average or better.

Where form level was above average, it was an indication of an emphasis on abstract forms of thinking and higher mental activity. An emphasis on abstract reasoning would be expected of a minister, manifesting itself in religious and theological speculation. Where form level was mediocre, there could have been an overriding intellectual ambition without the ability to back it up.

Forty per cent of physical science students also showed an overemphasis on whole responses. The form level for physical science students was a little higher than for theology students. This may have been a reflection of a little higher intellectual endowment among physical science students. However, both groups were of above average intelligence. An overemphasis on whole responses among physical science students seemed to be related to their efforts to gather facts and assemble them as an interrelated whole.

The use of integrated whole responses is an expression of the ability to derive generalizations from specific parts. It is a manifestation of categorical thinking. The difference between these two groups seemed to be that physical science students demonstrate this ability in their efforts to arrive at generalities on the basis of empirical facts and knowledge.

Theology students, on the other hand, manifest this characteristic in their development of religious dogma and theological speculation.

An overemphasis on whole responses is a frequent form of compulsiveness. The subject's need to include the blot in its totality may be a reflection of his need to control all aspects of a situation before he feels secure enough to respond to it.

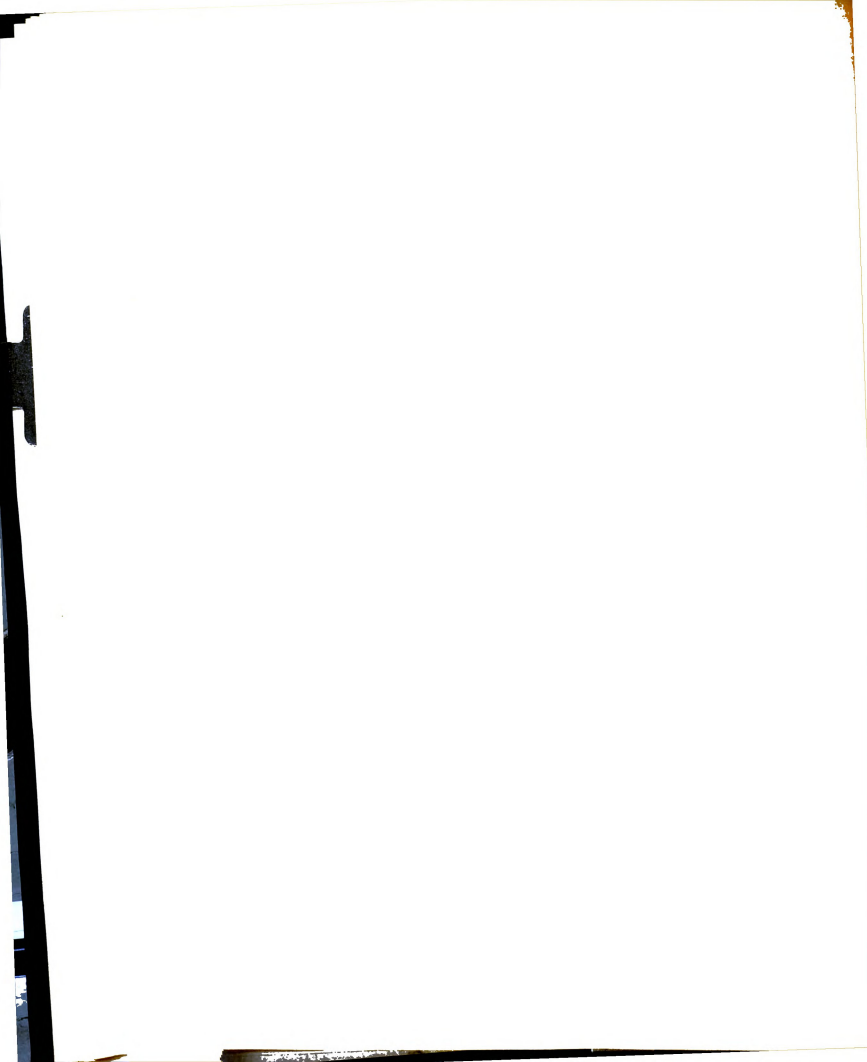
There was an even greater emphasis on unusual detail responses for both theology and physical science students. A plus entry was made if over 10 per cent of the responses were of this kind. These responses were mostly of the dr variety which tends to be characteristic of the compulsive and somewhat rigid perfectionist. This type of response lends support to the hypothesis of compulsiveness. An emphasis on whole and unusual detail responses may also characterize the individual who tends to withdraw within himself.

Over one-third of the theology and physical science students received a plus entry for space responses. This entry was made if two to four common space responses or two or three original space responses were given. The interpretation of space is, as yet, unsettled. Klopfer feels this reversal of figure and ground is an indication of oppositional or aggressive tendencies which find expression in the intellectual sphere. In an introversial setting he feels this opposition is turned against the self in the form of self criticism and

feelings of inadequacy. Others regard it as an indication of originality. Whatever the significance of space responses, it seemed to be a characteristic of theology students and physical science students.

Form Responses. After considering where theology students saw most of their responses, the next question was how they saw them. Pure form responses were considered first. If 50 to 75 per cent of responses were pure form, a plus entry was made. If 75 to 90 per cent were form only, a double plus entry was made. Form responses over 90 per cent received a triple plus entry. The majority of the entries were single plus. Over half of the theology students received a plus entry of some kind for overemphasis on this type of response. A fewer (42%) but still excessive number of physical science students also received a plus entry.

Pure form responses represent good reality-testing, devoid of emotional or creative elaborations. This implies a rather limited kind of perception and a possible constriction of affect. The fact that this constriction is associated with excessive whole responses reflects an inhibition through compulsive emphasis on organization and achievement. The picture of constriction would have been modified if there had been an adequate number of texture and vista responses. However, nearly half of the records of theology students showed a lack of texture responses. (Table XII) Three-fourths of the records of physical science students contained an



insufficient number of texture responses. Even though theology students produced more texture responses than physical science students, they were nevertheless seriously lacking in this area.

Human Movement Responses (M). An examination of living human responses indicated a source of this constriction. Thirty-one per cent of the subjects gave an inadequate number of living human responses. Three was considered the minimum number of M responses. This underemphasis became even more significant when it was realized that four students gave two M responses, but thirteen students gave only one or no M responses. A somewhat similar pattern was present among the physical science students. Eight students gave two M responses and eight students gave one or no M responses.

A human concept implies an ability to feel empathy with others. Human movement becomes a measure of the extent to which a person has developed mature adult identifications and can utilize the workings of his own imagination and inner urges in a productive manner. The human movement response, therefore, bridges the gap between the inner resources of drive and fantasy and the outward orientation of object relations. Thus a decrease in M implies emotional constriction, immaturity, or rigidity. This finding, coupled with high F and W, indicates that theology students are prone to seek refuge in some formalistic way of life or organization, when they lack mature emotional warmth or creativity. Physical science students may find this same refuge in the objective and clearly defined rules of scientific procedures.

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Color Responses. Color responses are a reflection of the individual's reaction to stimuli from the environment. A minus entry was made on the check list if not more than one well perceived (FC) color response was given. Good color responses, well combined with form, suggest an interest in relationships with other people. There is also implied the presence of social skills (control) which help in forming good relations. A lack of FC responses revealed difficulty in this area. Of those individuals showing a lack of FC, 13 also showed a lack of M but in 18 cases M was adequate. There seemed to be two types of problems represented. Where the individual was not comfortable with himself or with others a good deal of frustration and tension would be expected. Where human movement responses were present, it is possible that the individual tended to withdraw within himself and find substitute satisfactions in his own fantasy life. Such an adjustment, if not too severe, may be entirely satisfactory.

Physical science students showed a similar lack of FC responses. Of those receiving a minus entry, ten produced an insufficient number of M, but in thirteen cases M was adequate. The same interpretation can be given these results as was given for theology students.

The presence of color dominated responses provided an additional clue to the theology students' reaction to their



environment. Thirty-three per cent of those students who did not have enough FC responses gave from two to five CF responses. This preponderance of CF over FC indicated that emotional reactions tend to be expressed in an uncontrolled fashion. It is probable that theology students tend to be inhibited in their emotional reactions, but when they do respond, they show greater instability in emotional expression. These findings were substantiated by a high incidence of color shock (33 per cent). This category should be interpreted conservatively, however, since even mild color shock receives an entry on the check list.

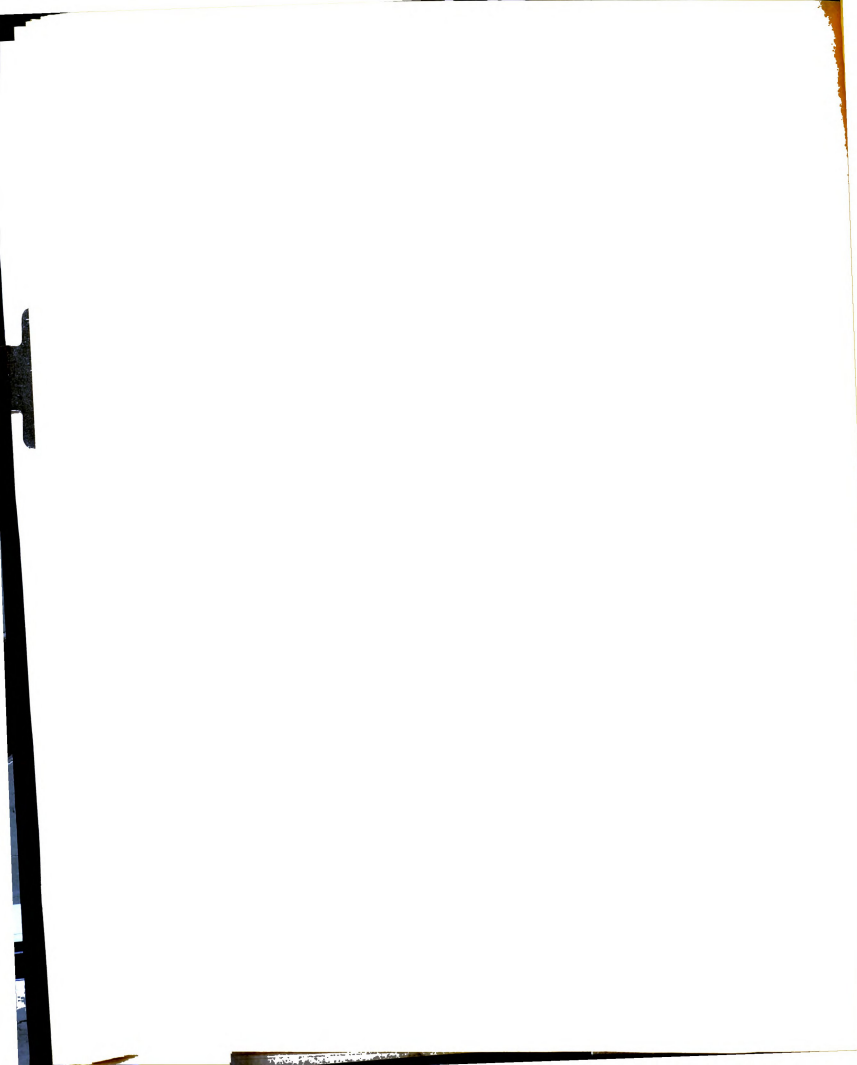
While theology students showed a preponderance of CF responses, physical science students manifested an under-emphasis of CF responses. Thirty-seven per cent of them received a minus entry. In most instances a minus entry had been made for both FC and CF responses. Physical science students seemed to show little responsiveness to influence from the environment.

The lack of adequate color responses for both theology and physical science students supports the hypothesis of constriction presented in the discussion of form responses. Repression of affect has been more complete among physical science students. This may be why physical science students concern themselves with inanimate objects which demand little in the way of emotional responsiveness. Repression of affect

has been less successful among theology students. Although they tend to be inhibited in their emotional reactions, they are occasionally swayed by strong feelings. The lack of color responses substantiates the significance of an underproduction of M, namely that both groups have difficulty in establishing close interpersonal relationships. The more effective repression of these needs on the part of physical science students may also be indicated by their turning to the less personal pursuits of the physical sciences. Theology students, far from successfully repressing the problem, try to resolve it more directly in the interpersonal demands of the ministry. Thus, the vocational choices of these subjects are in keeping with these patterns of adjustment.

At + Sex, Sexual Role. The criteria for determining entries in these categories were discussed in connection with the first hypothesis of this study. Table XII reveals that 34 per cent of the theology students gave an excessive number of anatomy and sex responses and that 33 per cent of them experienced difficulty in establishing their psychosexual role.

Responses of sexual confusion and ambivalence implied that the transition from a feminine to a masculine orientation was never successfully completed. Consequently, there is uncertainty and doubt regarding the role to be adopted. The number of records containing this type of response was small. Responses of latent homosexuality suggested that in the



oedipal and later stages of development the individual still had not completely resolved the problem of his psychosexual role. Responses in these two categories suggested that theology students had attempted to resolve this problem on several developmental levels. They gave some measure of the success which had been achieved in doing so.

In terms of behavior these feminine traits manifest themselves in the form of passivity and conformity in handling life situations.

Hostility. Criteria for making entries in this category were presented in Chapter III. Although these criteria are subject to variation in clinical judgment, the tendency was toward conservativeness in entering a check mark. Table XII discloses that 31 per cent of the theology students experienced strong hostility feelings which they had difficulty in handling. In a few severe cases, form level was also poor.

These hostility feelings were in marked contrast to the passivity discussed in the preceding section. The Group Rorschach has apparently tapped two levels of awareness. Patterns of passivity and conformity are probably active and conscious while feelings of hostility remain latent and largely unconscious. Individuals manifesting this personality pattern have usually experienced difficulty in their early experiences with authority. Conflict often occurs with



parental figures who may have tended to be domineering and restrictive in the amount of self expression permitted in early childhood. Anger and rebellion is the common reaction to such restriction. If a strong enough fear of retaliation and rejection arose because of these feelings, hostility and rebellion would be repressed and an opposite attitude of passivity and conformity substituted in its place. This type of defensive reaction formation seemed to be portrayed by the test results. The early development of this type of reaction was indicated by the fact that many hostile responses had an oral characteristic about them, such as biting, chewing, tearing, etc.

Color:Movement. The ratio of color to movement is a classification developed by Munroe. It was obtained by summing all chromatic color responses and all types of movement responses. If total movement was three times as great as total color, a minus entry was made. If the ratio was four to one, a double minus entry was made. If the ratio was six to one or greater, a triple minus was entered. Six theology students had a minus entry, five had a double minus and six had a triple minus entry. Among physical science students, four had a minus entry, five had a double minus and five a triple minus entry. This ratio is intended to measure the balance between introversive and extratensive tendencies and it can be seen that in the majority of the subjects checked a strong introversive tendency existed for both groups.

M:Sum C. Where the optimum ratio of 2:1 was exceeded in the direction of human movement, a minus entry was made. Fourteen theology students received such an entry. They were subjects who had either received a plus entry for over-emphasis on M or M was normal and FC was minus. In only two cases were both color and human movement minus. This ratio did not reflect an introversive trend among theology students.

The optimum ratio of 2:1 was exceeded in the direction of human movement by nineteen physical science students. This constituted 42 per cent of the subjects and revealed a definite introversive trend. In most cases the minus entry was due to an underproduction of color responses.

FM+m:Fc+c+C'. If this ratio was weighted at all in the direction of movement, a minus entry was made. It may have been better to have allowed some latitude for mild emphasis toward use of achromatic color or movement without making an entry. Thirty-four theology students and thirty-five physical science students received minus entries. In spite of the freeness with which minus entries were made, the picture was still that of an introversive trend for both groups.

Percentage of responses to last three cards. If fewer than 30 per cent of responses were given to the last three cards, a minus entry was made. Twenty theology students or 36 per cent of the sample showed this underproduction. Only 27 per cent of the physical science students manifested an underproduction on the last three cards.



These four ratios pointed in the direction of introversive tendencies for both groups with two exceptions. The ratio of M:Sum C was generally within normal limits for theology students, while the percentage of responses to the last three cards tended to be within normal limits for physical science students.

Psychological Satisfactions of the Protestant Ministry

The Protestant ministry, in common with the ministry in general, is essentially authoritarian in that it demands obedience to a Higher Power and conformity to a code of morality. Psychologically, it provides a satisfactory outlet for those individuals whose rearing has accustomed them to this pattern of behavior.¹³ Docility must be maintained, and the Protestant ministry places a premium on this mode of behavior. Although outward passivity is maintained, there is yet the factor of unconscious hostility and rebellion to be dealt with. The ministry may provide a convenient means of expressing this hostility in the form of moral indignation. In psychological terms, if a choice must be made between the role of the child who is restricted and the role of the powerful parent who prohibits, it is better to choose the role of the parent who prohibits. In this role, aggressiveness and domination are acceptable and safe.

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For an extreme case of authoritarian psychology, see G. M. Gilbert, The Psychology of Dictatorship, New York, The Ronald Press, 1950, 327 pp.

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This moral indignation does not have its basis in hostility alone. It may also stem from an overpowering need to repress the expression of inner impulses. Repression is a dynamically fluctuating process and under the pressure of appropriate stimulation forbidden impulses might at some moment erupt into consciousness. In maintaining these repressive defenses, the minister also lives out the role of the restricted child. Repression may be sustained by projecting these impulses into the environment and thereby shifting the battle from the psyche to the outer world. By controlling these impulses in other people the minister controls them in himself.

In his intermediate position between God and the people, the minister is again enabled to play both these roles. In his relationship to God, he remains the outwardly conforming child. In his relationship to his congregation, he acts as the representative of God. As the representative of God, he becomes as God or the authoritarian parent. In this role his unconscious rebellion becomes successful, and he is powerful like the parent. This situation is clearly illustrated by the common expression of the minister that his parishioners are his children. In his role of authority he is now permitted to make his own demands for obedience. It is possible to see that the Protestant ministry provides many opportunities for the minister to relive his childhood solution to the problem of authority.

The patterns of adjustment discussed in this chapter should not be construed as abnormal. There are many methods by which individuals can cope with life situations with a minimum amount of tension and personal discomfort. Each of them has its advantages and disadvantages. The adjustment patterns revealed by this study seem to be typical of theology students. Such patterns of behavior can be entirely satisfactory for the individual. Their expression through the functions of the Protestant ministry demonstrates how they can also make a worthwhile contribution to society.

1

CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS FOR FURTHER RESEARCH

Summary

There have been relatively few personality studies conducted on candidates for the Protestant ministry. The need for greater research in this area is being recognized, particularly by Protestant educators who have the responsibility of selecting and training future ministers. The knowledge which has been gained has not been systematized in any fashion to see if there are testable personality patterns which characterize Protestant ministers. There is also little understanding of the relationship between personality factors and choice of the Protestant ministry as a vocation. The urgency of this problem is disclosed by an increasing tendency for Protestant educators to turn to psychologists and psychiatrists for an evaluation of the prospective theology student as a part of his entrance requirements to graduate seminary. The primary objective of this study was to see if there are broad personality factors which distinguish Protestant graduate theology students. In order to have some basis for making judgments, they were compared with graduate students in the physical sciences. More

specifically, this study attempted to determine: (1) if there were testable personality variables which distinguished divinity students from physical science students, (2) whether there was a significant difference in general level of adjustment between theology and physical science students, (3) how the value judgments of divinity students differed from those of physical science students, (4) if psychological test data would yield broad personality clues which would be characteristic of divinity students.

Protestant graduate theology students were selected from Anderson College, Oberlin College and the University of Chicago. Graduate physical science students were selected from Michigan State University. The fields of specialization represented in the latter group were: Agricultural Engineering, Chemistry, Chemical Engineering, Electrical Engineering and Physics and Mathematics. All subjects in the samples participated on a voluntary basis.

The diagnostic instruments employed were the Group Rorschach and Allport-Vernon Study of Values. The data from these two tests plus information from a short personal history blank constituted the body of facts known about the subjects.

The following general steps were taken in carrying out the study:

1. The Group Rorschach and Study of Values were administered to all subjects.

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2. The tests were scored and tabulated in convenient form for analysis. The Munroe Check List was utilized as the method of quantifying the Group Rorschach data. A random sampling of Rorschach tests were rescored by a Rorschach expert to insure consistency and accuracy.

3. The test data was analyzed using appropriate statistical procedures.

4. Some tentative hypotheses were formulated concerning broad personality patterns which characterized Protestant ministers.

Findings

The findings resulting from a comparison of the physical science students and theology students on the Group Rorschach revealed the following:

1. Theology students produced more texture responses than physical science students. The difference was significant at the 1 per cent level of confidence.

2. More theology students experienced difficulty in establishing psychosexual role. The difference was significant at the 1 per cent level of confidence.

3. Theology students gave more anatomy and sex responses than physical science students. This item discriminated at the 6 per cent level of confidence.



4. The number of responses per record was higher for theology students. A significant difference was obtained at the 2 per cent level of confidence.

5. Physical science students showed less emotional spontaneity when compared with theology students. A difference significant at the 2 per cent level of confidence was obtained.

6. There were more theology students who showed evidence of difficulty in handling hostility feelings. The difference was significant at the 4 per cent level of confidence.

The findings related to the general level of adjustment of theology and physical science students indicated the following:

1. There was no significant difference in adjustment between the two groups.

2. Although slightly high, the level of adjustment of both groups was within normal limits.

A comparison of theology and physical science students on the Study of Values produced the following results:

1. Physical science students secured higher scores on the Theoretical Scale. The scale discriminated at the 5 per cent level of confidence.

2. Theology students scored higher on the Religious Scale. The difference was significant at the 5 per cent level of confidence.



3. The test patterns obtained in this study closely approximated the specialized norms for the test.

An analysis of the Group Rorschach records of theology and physical science students revealed the following patterns:

1. In their choice of location of responses, both groups tended to overemphasize whole responses, unusual detail responses and space responses.

2. Both groups produced an excessively high percentage of form responses and an inadequate number of texture responses.

3. Both groups gave an insufficient number of FC responses. Theology students overemphasized CF responses while physical science students underemphasized them.

4. Four ratios designed to measure introversive-extratsensive tendencies pointed in the direction of introversion for both groups with two exceptions. The ratio of M:Sum C was normal for theology students and the percentage of responses to the last three cards was normal for physical science students.

5. Theology and physical science students tended to produce an insufficient number of human movement responses.

6. Theology students gave too many anatomy and sex responses and experienced difficulty in establishing psychosexual role.

7. Theology students experienced difficulty in handling hostility feelings.



Conclusions

The following conclusions may be drawn from the findings of this study. These conclusions should be viewed more as hypotheses which can form the basis for further research.

1. The Group Rorschach is capable of establishing personality variables which differentiate Protestant theology students from physical science students. It is very probable that comparison with more narrowly defined occupational groups will reveal more differences than appeared in the present study. Such findings would have important implications for vocational selection.

2. The general adjustment level of theology students is about the same as that of physical science students. Both groups fall within the normal range.

3. The value judgments considered important by theology students are significantly different from those considered important by physical science students.

4. The test data yielded broad personality patterns which seemed to characterize both divinity and physical science students. (a) Both physical science and theology students are of above average intelligence and show an exceptional ability to make generalizations in thinking. While physical science students express this ability in the development of scientific theory, theology students express this same capacity in the development of religious dogma and theological speculation.

(b) Theology and physical science students experience difficulty in accepting and giving expression to their own inner impulses. Repression of emotional responsiveness to environmental stimuli has been less successful for theology students than for physical science students. When they do respond, theology students tend to show more instability in emotional expression. (c) Both groups have difficulty in establishing warm interpersonal relationships. Physical science students seem to have adjusted to this difficulty by turning to the less personal pursuits of the physical sciences. Theology students have attempted to resolve this problem more directly by entering a vocation demanding many interpersonal contacts. (d) The behavior of theology students tends to be marked by passivity and conformity. Beneath the surface, however, there are deep seated feelings of hostility and rebellion.

5. In general, the results suggest that while the minister's role provides opportunities for resolving childhood conflicts in an authoritarian setting, it provides ample opportunity to do so in a socially constructive manner.



Implications for Research

This study represents only a small beginning in the investigation of the personality structure of religious leaders. In carrying out this study, many questions were raised which can only be answered by further research. Some of the more important ones are as follows:

1. Certain test patterns and personality clues were obtained in this study. It would be of value to repeat this study with a new sample of Protestant graduate theology students. If the results were similar, the reliability of these findings would be considerably enhanced.

2. This study has indicated that there are measurable personality factors which distinguish theology students from physical science students. The implication is that there are also personality differences between theology students and students in other vocational fields. Extensive investigation of this possibility should be extremely rewarding. Experience in this study suggests that greater results would be obtained by making comparisons with more narrowly defined vocational fields.

3. In American Protestantism there are many denominations showing a wide variety of religious characteristics. It would be of value to conduct a comparative study of denominational religious leaders to see if significant personality differences exist.

4. There have been no studies undertaken of eminent Protestant ministers to see why they are outstandingly successful in their field. It seems that such studies would be of primary importance in understanding what factors contribute to success in the Protestant ministry. This would also be invaluable in providing a better understanding of any knowledge gained from studies designed to discover what contributes to failure in the ministry.

5. Certain theoretical formulations were expressed regarding the etiological factors contributing to the personality patterns revealed in this study. A study of Protestant ministers using a case history approach would contribute to establishing the validity of these assumptions.

6. The three major religious groups in the United States are Catholic, Protestant and Jewish. A comparative study of these three groups would provide valuable information on the personality similarities and differences existing among their religious leaders. Such knowledge would be helpful in understanding the broad personality patterns common to religious leaders.

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APPENDIX A

THE LETTER TO GRADUATE PHYSICAL
SCIENCE STUDENTS



Dear Student:

There are stereotypes which are used to describe scientists and engineers and persons entering other professional fields. A study is presently under way to determine if there are traits and characteristics which typify those individuals working in the physical sciences as contrasted with persons whose profession involves working primarily with people, as, for example, ministers. A study such as this is important in establishing criteria for selecting students for graduate training who would be most likely to make a good personal adjustment in their work.

This study has been presented to your department head and he has shown considerable interest in it. He has consented to contacting the graduate students in the department.

A battery of tests of personality and value judgments will be administered which will take not more than two hours. Each student participating will be given a number so that his test results will remain anonymous. We are interested in the results of the group as a whole.

Recognizing that your time is limited, three testing periods have been arranged between quarters. You may choose one of the following.

Thursday, March 31, from 2:00 P.M. to 4:00 P.M.

Friday, April 1, from 10:00 A.M. to 12:00 noon

Saturday, April 2, from 10:00 A.M. to 12:00 noon

Testing will take place in room 119, Kedzie Hall. Will you please fill out the enclosed card stating your preference and mail it as quickly as possible? If you agree to take part a reminder will be sent to you a day or so before the date you have chosen.

Your contribution of time and effort in this study will be greatly appreciated.

Sincerely yours,



APPENDIX B

GROUP RORSCHACH DATA

TABLE XIII
SUMMARY OF DATA
THEOLOGY STUDENTS

REFUSAL	N = 65
W/O	M = 31.400
DD	1-1
S	21, 2-5, 4, 4B
SUCCESSION	22, 2++
P	14+, 6++
O	11-
AT, SEX	7B, 4B
RANGE	15+, 3+, 1++
F%	8-, 15T
F (V, B, E)	25+, 3++
SHAPING SHOCK	6%, 2B, 1B
FK, FC	2
FC	11-, 15-
K, K	3+, 1++
M	9+, 1++
FM: M	3+, 2++, 1+++, 4-, 13-, 1B
M	9+, 4++, 1+++, 3-, 2-
TOTAL MOVEMENT	12+, 14++
COLOR SHOCK	3+, 1-
FC	18
CF, CF: FC	22-, 9-, 1B
CF, Cn	10+, 7+, 1+++, 8-
TOTAL COLOR	1+, 1++
COLOR: MOVEMENT	2+, 12-
TOTAL NO. OF CHECKS	6-, 5-, 6-, 5+, 2+, 7, 4U
1: EC	M = 8.979
Mtm: E+e+e+	14-, 9+
AST 3 CARDS	34-, 2+
OSTILITY	20-, 4+, 2++
EXUAL ROLE	17
	1B

TABLE XIV

SUMMARY OF GROUP RORSCHACH DATA
PHYSICAL SCIENCE STUDENTS

N=45	
M=26.080	
3+1,1+1	
18+1,1+1	
22+1	
13+3+1,1++	
SUCCESSION	
5-	
38,38	
7+	
14-15,1+1	
16+2+1,1++	
20,1V	
18-16-	
1+	
3+1+1-	
8-8-2+1,1++ 10,1+	
6-8+3+1,1++	
5+1+	
2+1-3-	
14+	
12-11-	
17-6+3+	
12+1+	
12-12-2+1,1++	
4-5-5-6+1+	
M:3,2++	
22-16+	
16,1+	
12,18+	
5+	
4+	
NUMBER OF R	
REFUSAL	
W/O	
D	
S	
P	
O	
ALL SEX	
RANGE	
P	
F (V, B, D)	
SHADING SHOCK	
FR, P, R	
C	
K, K	
M	
M:1:M	
TOTAL MOVEMENT	
COLOR SHOCK	
CF, CF:FC	
CF, Cn	
TOTAL COLOR	
TOTAL MOVEMENT	
TOTAL NO. OF CHECKS	
1:EC	
Mtm: Fetc+c'	
AST 3 CARDS	
HOSTILITY	
SEXUAL ROLE	

TABLE XV

GROUP RORSCHACH DATA
ANDERSON COLLEGE

CASE NUMBER	1	2	3	4	5	6	7	8	9	10	11	13	14	N=13
NUMBER OF R	34	51	30	32	36	31	27	33	26	28	21	26	41	M=32
REFUSAL	+			+	+	+		+	+	+	+	+	-	5+, 1-, 10'
W/O		+		+	+			+	+	+	+	+		5+, 1+, 5+
SUCCESSION														
P														
O														
AT, SEX														
RANGE														
F%														
F (V, B, E)														
SHADING SHOCK														
FR														
C														
K, K														
M														
FM: M														
FM														
TOTAL MOVEMENT														
COLOR SHOCK														
FC														
CF, CF: FC														
C>I, Cn														
TOTAL COLOR														
COLOR: MOVEMENT														
TOTAL NO. OF CHECKS														
M: EC														
FM+ m: F+ c+ c'														
LAST 3 CARDS														
HOSTILITY														
SEXUAL ROLE														



TABLE XVI
GROUP HORSCHACH DATA
UNIVERSITY OF CHICAGO

CASE NUMBER	30	31	32	33	34	35	36	37	38	40	41	42	43	44	N=14
NUMBER OF R	32	22	41	25	27	28	44	46	30	24	29	43	45	33	M:33.07
REFUSAL		+			+	+	+	+	++	+	+	+	+	8%	2+, 1B, 1B ² 5+
LOCATION					++										4-, 2++
SUCCESSION															
CON	-			-	+			++	T	++	-	+	8	-	3- B ² , 1B ²
AT SEX		++	+	T		+		++					+	T	6+, 2++, 1++
RANGE		T				+									6+, 1+, 1-
F (V, B, E)														B ² , 1%	B ² , 1%
SHADING SHOCK	-		-	-					-					-	4-, 1--
EX, EC															1+
C			++	+		-		+	++	++	-	+	+	+	3+, 1++ 1-, 2-, 1B
K, K		-	+		+			+							3+, 1++ 2+, 1++
FM: M				+	+				+						1+
TOTAL MOVEMENT										✓				✓	5+
COLOR SHOCK	✓			✓											3-, 1B
EC		+		+											1+, 2+
CF, CE: FC			B												1+, 2+
C ₁ , C ₂															1+, 2+
TOTAL COLOR															1+, 1-
COLOR: MOVEMENT										+	-	+	6	10	1+, 1+, 2-, 1-, 1-, 2+
TOTAL NO. OF CHECKS	3	10	11	10	5	9	1	7	4	7	8	4	6	+	4-, 2+
M: EC	-														6-, 2+
EM: m: E+e+C'															3-, 2+, 1++
LAST 3 CARDS		✓													5-
HOSTILITY															
SEXUAL ROLE	✓			✓								✓			

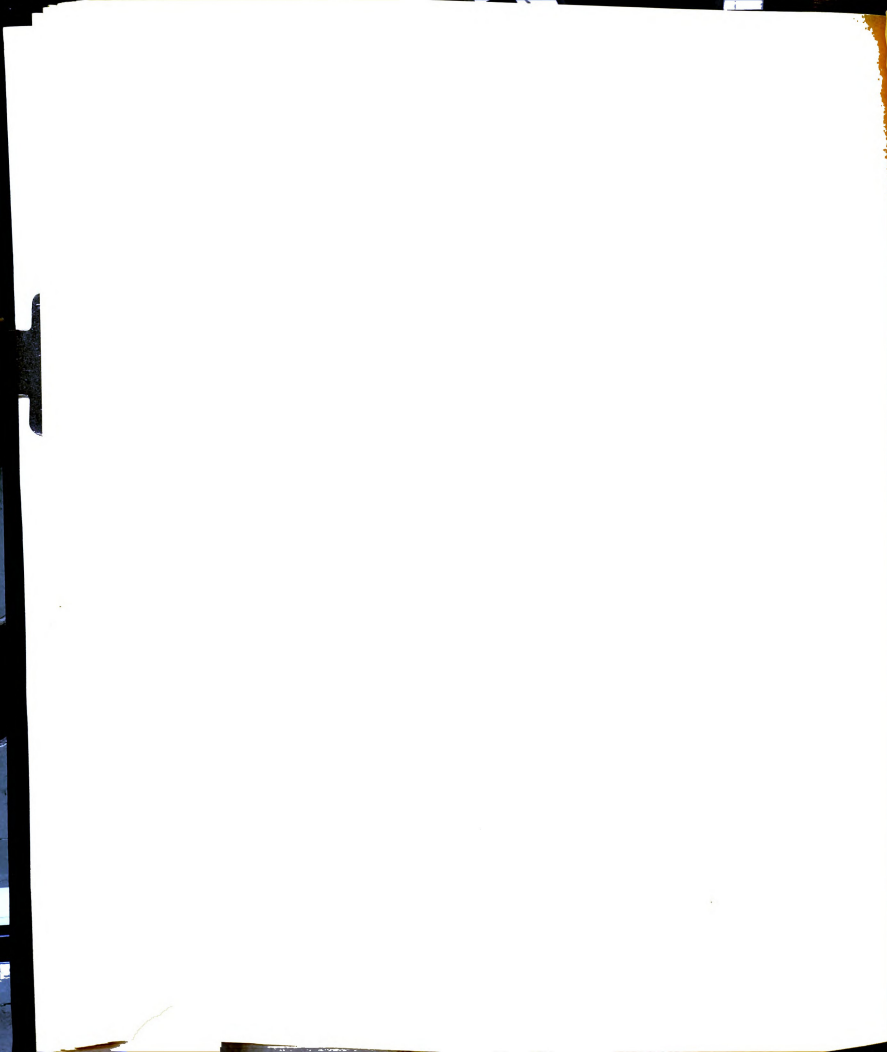


TABLE XVI continued

CASE NUMBER	150	151	152	154	155	166	157	158	159	160	161	162	163	164	N=14
NUMBER OF R.	54	37	35	37	22	42	34	26	47	40	31	17	37	24	
REFUSAL	+	-	+	+	+	+	+	+	+	+	+	+	+	+	7+, 2B, 4 ³ N
VV%	+	-	+	+	+	+	+	+	+	+	+	+	+	+	6+, 1++
DD	+	-	+	+	+	+	+	+	+	+	+	+	+	+	4+, 1++
S	+	-	+	+	+	+	+	+	+	+	+	+	+	+	5-
SUCCESSION	+	-	+	+	+	+	+	+	+	+	+	+	+	+	4B
P	+	-	+	+	+	+	+	+	+	+	+	+	+	+	7+
AT SEX	+	-	+	+	+	+	+	+	+	+	+	+	+	+	2T
RANGE	+	-	+	+	+	+	+	+	+	+	+	+	+	+	8+, 1++
F%	+	-	+	+	+	+	+	+	+	+	+	+	+	+	1B, 4 ³ N
CRM	+	-	+	+	+	+	+	+	+	+	+	+	+	+	2-, 2--
F(V, B, E)	+	-	+	+	+	+	+	+	+	+	+	+	+	+	2+
SHAPING SHOCK	+	-	+	+	+	+	+	+	+	+	+	+	+	+	1+, 3--
F, F ₂	+	-	+	+	+	+	+	+	+	+	+	+	+	+	2+
C	+	-	+	+	+	+	+	+	+	+	+	+	+	+	1+
K, K	+	-	+	+	+	+	+	+	+	+	+	+	+	+	1+
M	+	-	+	+	+	+	+	+	+	+	+	+	+	+	2+
EM: M	+	-	+	+	+	+	+	+	+	+	+	+	+	+	1+
TOTAL MOVEMENT	+	-	+	+	+	+	+	+	+	+	+	+	+	+	6-
COLOR SHOCK	+	-	+	+	+	+	+	+	+	+	+	+	+	+	4-, 6--
EC	+	-	+	+	+	+	+	+	+	+	+	+	+	+	1+, 4++, 1+++, 3-
CF, CF: EC	+	-	+	+	+	+	+	+	+	+	+	+	+	+	1++
CZ, Cn	+	-	+	+	+	+	+	+	+	+	+	+	+	+	5-
TOTAL COLOR	+	-	+	+	+	+	+	+	+	+	+	+	+	+	2-, 2--+, 1+
TOTAL NO. OF CHECKS	9	10	9	11	10	11	15	10	8	11	3	12	9	9	3-, 2+
M: EC	+	-	+	+	+	+	+	+	+	+	+	+	+	+	10-
EM: m: F: c: + C	+	-	+	+	+	+	+	+	+	+	+	+	+	+	7-
LAST 3 CARDS	+	-	+	+	+	+	+	+	+	+	+	+	+	+	5
HOSTILITY	+	-	+	+	+	+	+	+	+	+	+	+	+	+	5
SEXUAL ROLE	+	-	+	+	+	+	+	+	+	+	+	+	+	+	5

TABLE XVIII
GROUP RORSCHACH DATA
AGRICULTURAL ENGINEERING

CASE NUMBER	48	49	50	51	52	53	54	55	56	57	58	59	60	61	N=18 M=18.00
NUMBER OF R	8	15	10	20	26	26	26	35	20	17	14	19	11	11	
RECAL	+	+	+	+	+	+	+	+	+	+	+	+	+	+	1-1,1-1-
W% ₁₂															0+
DD															2+
S															2+
SUCCESSION															
P															3-
Q															10+
AT, SEX															2+
RANGE															3-3T, 1H
FC															4+
F(V, B, E)															10 ² , 1V
SHADING															5-, 4-
SHOCK															
FK, FC															
Q															
K, K															
FM: M															1-, 1+
FM: M															3-, 3-
FM: M															4-, 3+
FM: M															1+, 1+
FM: M															2-
FM: M															3-
FM: M															5-, 12+, 1+
FM: M															2-, 17, 1+
FM: M															2-, 1-, 4+, 1+
FM: M															M=9.4+17
FM: M															6-, 2t
FM: M															11-, 3-
FM: M															3+, 3-
FM: M															1-

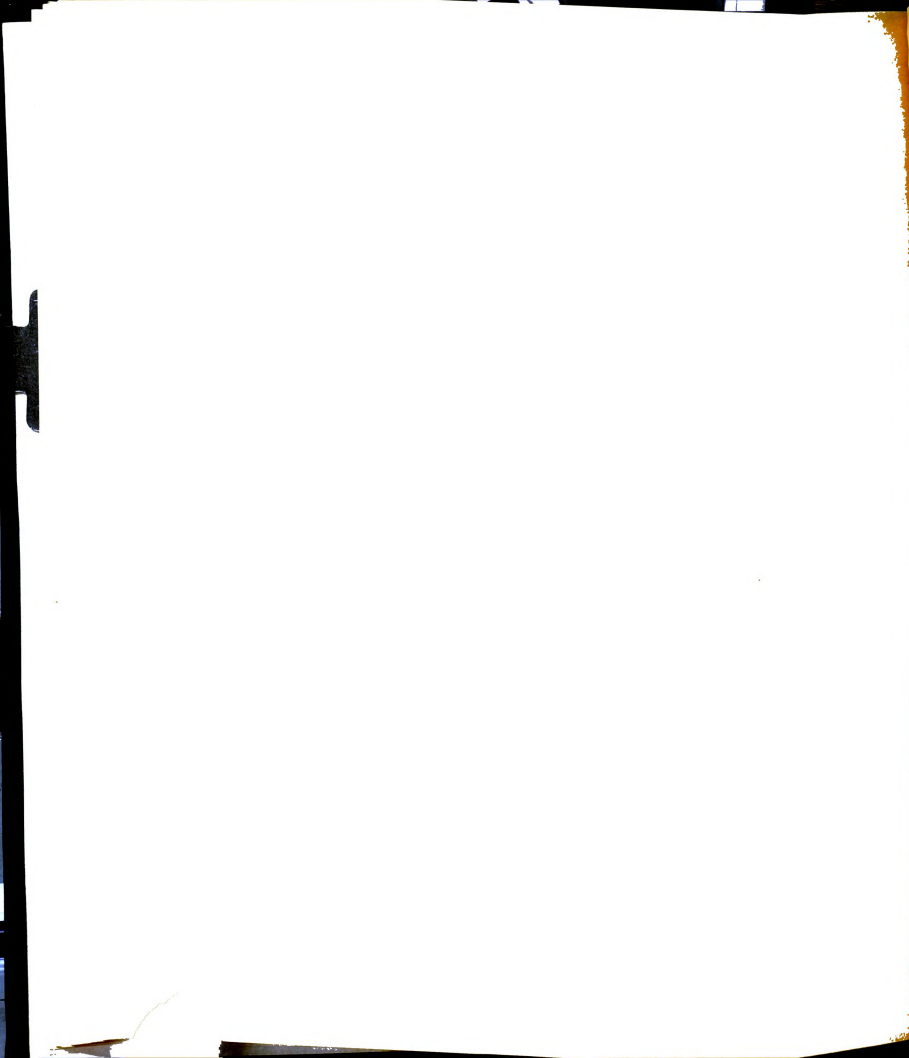


TABLE XIX

GROUP RORSCHACH DATA
CHEMISTRY

CASE NUMBER	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	N=16
NUMBER OF R	19	30	50	21	25	30	31	29	22	20	17	30	25	27	16	24	M=26.50
REFUSAL																	
VV%				8/4													11/4
DD	+	+	+			+		+	+	+			+	+	+	+	6/4
S						+											6/4
SUCCESSION																	5/4
P																	2-
Q																	10, 20, 12
AT, SEX	+							+									3/4
RANGE																	6/4
F%																	6/4
F(V, B, E)																	10/4
SHADING SHOCK																	7/4
FR, FC																	1/4
C																	3/4
K, H																	1/4
M																	3/4
FM: M																	1/4
TOTAL MOVEMENT																	3/4
COLOR SHOCK																	1/4
FC																	2/4
CF, CF: FC																	2/4
CZ, CZ																	4/4
TOTAL COLOR																	3/4
COLOR: MOVEMENT																	2/4
TOTAL NO. OF CHECKS																	2/4
MEC																	3/4
FM: M: F, A, C, C'																	3/4
LAST 3 CARDS																	3/4
HOSTILITY																	2/4
SEXUAL ROLE																	4/4

TABLE XX

GROUP RORSCHACH DATA
CHEMICAL ENGINEERING

CASE NUMBER	76	77	79	80	81	82	N=6
NUMBER OF R.	40	34	13	20	35	27	M=28.17
REFUSAL			+	+	+	+	
W%		+					2+
PD		+					3+
S		+					1+
SUCCESSION							
P							
Q					B		18
AT, SEX				+			1+
RANGE				+			2-3T
F%				+			1+, 1+
F (V, B, E)							
SHAPING SHOCK							3-, 2--
EK, FC							
C							
K, K		+				++	1+, 1++
FM: M			+				1--
m		+					1+
TOTAL MOVEMENT							1+
COLOR SHOCK							3-
FC						+	2-
CF, CF: FC							3-, 1+
CZ, Cn							
TOTAL COLOR							1-, 1--
COLOR: MOVEMENT							1--
TOTAL NO. OF CHECKS	4	15	3	14	6	4	M=7.667
M: EC							3-
FM: m, Fc, t, c'							5-
LAST 3 CARDS			+				2-, 1+
HOSTILITY							
SEXUAL ROLE							

TABLE XXI

GROUP RORSCHACH DATA
PHYSICS-MATHEMATICS,
ELECTRICAL ENGINEERING

CASE NUMBER	64	65	66	67	68	69	70	71	72	73	74	N=11
NUMBER OF R	17	39	30	45	37	26	50	22	55	41	22	M=34,209
REFUSAL	✓✓											1✓✓
VV%			+	-	+							21,1-
DD	+	+	+	+	+	+	+	+	+	+		0+
S		+	+									5+2+1,1+++
SUCCESSION												
P												
O												
AI, SEX												1B
RANGE												1+
F%												3-3T
F(V,B,E)												5+1+++
SHAPING SHOCK												
FK, FC												3-5-
C												
K, K												
M												1+
FM:M												1+,2-,3--
m												1-,2+,2++
TOTAL MOVEMENT												1+
COLOR SHOCK												1+,1--
EC												2✓
CF, CF:FC												5-3-
CZL, CZ												5-31+,1++
TOTAL COLOR												6-
COLOR: MOVEMENT												1+,1-,3--
TOTAL NO. OF CHECKS	16	5	5	17	11	9	7	18	7	10	10	M=10,454
M:EC				+								4-1,1-
EM:m: Fc+etc'												6-1,1+
LAST 3 CARDS												2✓
HOSTILITY												
SEXUAL ROLE												

APPENDIX C

ALLPORT-VERNON STUDY OF VALUES

(See Flap Inside Rear Cover)

APPENDIX D

PERSONAL HISTORY BLANK

Code number _____ Age _____ Sex _____ Denomination _____

Major field of study _____

Academic degrees held _____

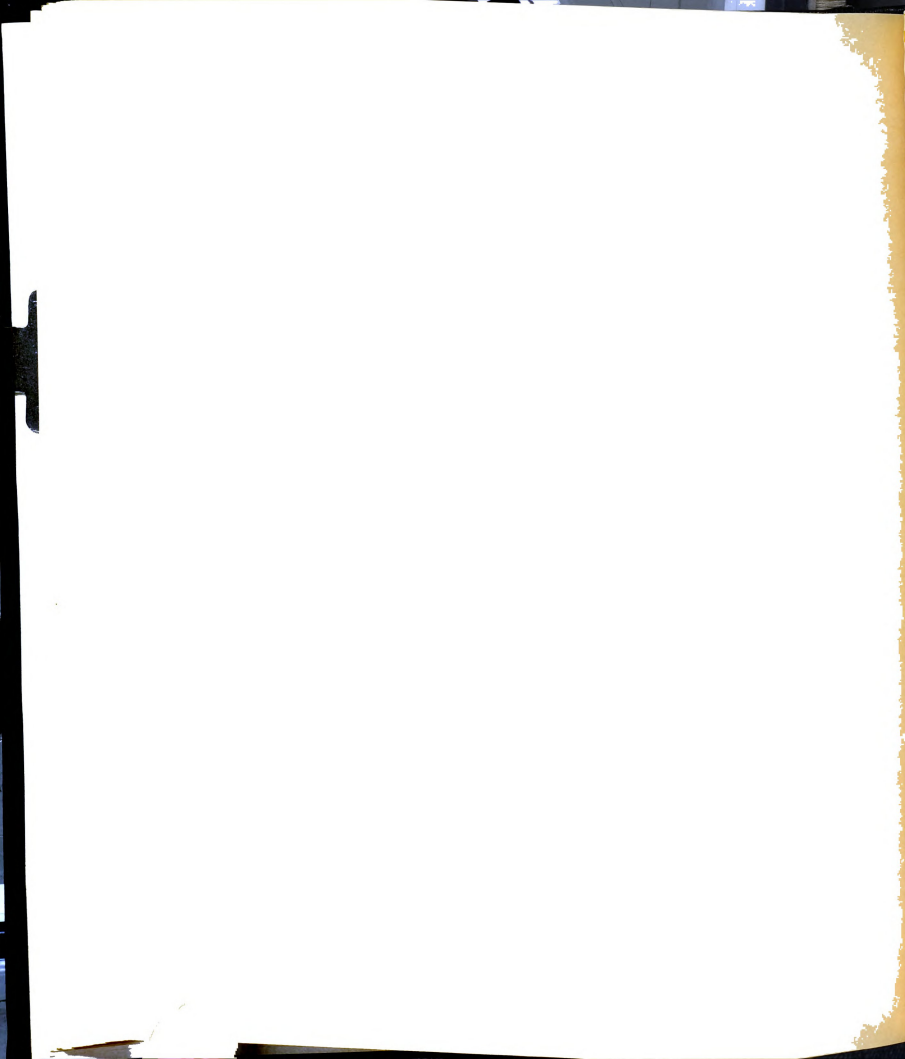
Degree presently working toward _____

Kind of work contemplated after graduation _____

Years of experience in chosen occupation _____

APPENDIX E

INSTRUCTIONS FOR GROUP RORSCHACH



Introduction

This test situation is somewhat different from others you have taken and you will probably find it a more enjoyable experience. It is not a difficult test, but it is necessary that you listen carefully in order to carry out the instructions. As the material contained in the test will have a different meaning for each of you, it is important that you do not consult your neighbors or compare notes after the test begins.

Directions

On the screen I am going to project ten ink blots which will be exposed for three minutes each. During the time the blot is projected, I would like to have you write down on the right hand page of the booklet your responses; that is, what you see in the blots, what they look like to you, what they might be. You may write down as many responses as there are different ideas which the blots suggest. Number your responses to each blot and start each new idea on a separate line. Write your responses to a single blot on one page and begin a new page for each new slide. Draw a line under your last response on each page after the slide has been removed from the screen.

Instructions for Inquiry

In order to score your responses adequately, it is necessary for us to know where, how and why you saw what you said you saw. The ten slides will be projected on the screen once more and you are asked to answer these questions to the best of your ability.

Location Charts. The answer to the question "where" is to be supplied by drawing a circle around the part of the blot where the response was seen. Use the reproductions on the left hand side of your booklet. Number the part marked off to correspond to the number of the response (Example: Slide I, bat, witch, bell).

Description. The questions "How" and "why" are to be answered on the left page of your booklet and are to be numbered to match your original responses. These explanations may be brief, but should be sufficiently complete to provide a clear impression of your reactions to the blots. I will give you an example of what you are to do. (Show Slide VIII) Many of you, perhaps, saw these animals (indicate). They may have been seen as part of an emblem or coat of arms, or they may have been seen as animals climbing or stalking prey. This portion (indicate) might have been seen as blue flags waving in the breeze; or this same portion may have been seen as cushions with blue satin covers. This portion (indicate) may have been seen as a butterfly because it is shaped like one

or it may have been seen as a tropical multi-colored butterfly.

It is important to let me know how and why you saw the particular things you did.

(Time for questions.)

APPENDIX F

GROUP RORSCHACH BLANK

(See Flap Inside Rear Cover)

APPENDIX G

INDIVIDUAL RORSCHACH SCORING BLANK

THE RORSCHACH METHOD OF PERSONALITY DIAGNOSIS

INDIVIDUAL RECORD BLANK

Developed for the Rorschach Institute, Inc.
By BRUNO KLOPFER and HELEN H. DAVIDSON

Name..... Sex..... Date..... Examiner.....
Birthdate..... Age..... School..... Grade.....
Address..... Occupation.....

TO THE EXAMINER

N.B. For further information about the use of this Record Blank, and scoring and interpretation of results, the examiner is referred to "The Rorschach Technique" by Bruno Klopfer and Douglas Kelley, published by World Book Company.

To facilitate recording of responses, divide your record sheet into two columns: one for the performance proper and one for the inquiry.

Number the responses to each card separately. Number each response in the inquiry to correspond with the main response if it is an elaboration of or an addition to it. If a new response is given in the inquiry, list it as an additional response by adding a letter to the number of the preceding response.

Leave adequate space after each response in case the inquiry should require more space than the original response.

For position of card, use symbols $\wedge$ $\vee$ $>$ $<$, the apex indicating the top of the card as presented to the subject.

For time, note the time when each card is presented and the time when the first response is given. Note the total time for each card and the total time for the performance proper. Time any delays of more than 10 seconds between responses.

Indicate on the picture sheet (page 5) the area chosen by outlining the part and numbering it with the same number as the response. If the whole blot is chosen, write "W" next to the number of the response. This can be done during or after the inquiry. In case of doubt, ask the subject to outline his concept on the picture sheet.

List the scoring of all responses in the form on page 2. Columns are provided for recording the number of the card and the response numbers, the time, the position of the card, and main and additional responses. Additional determinants to a main response are also to be listed in the "Add" column, listing these one below the other if there are several.

Use the Tabulation Sheet (page 3) for the tallying of all responses. Tabulate all additional scores in the "Add" columns. Use a pencil of a different color for this purpose.

Only *main* responses are used in determining the relationships among factors on page 4. Compute percentages only in the instances where they are specifically called for as indicated by the "%" symbol. In all other cases, simply record the absolute frequencies of the various categories.

SUMMARY OF PERSONALITY DESCRIPTION

SCORING LIST

[illegible]

TABULATION SHEET

LOCATION

DETERMINANTS

CONTENT

Scoring Symbols	Number of Card																				Total	
	I		II		III		IV		V		VI		VII		VIII		IX		X			
	Main	Add	Main	Add	Main	Add	Main	Add	Main	Add	Main	Add	Main	Add	Main	Add	Main	Add	Main	Add	Main	Add
W { W DW																						
D																						
d																						
Dd { dd de di dr																						
S																						
Main Total	-	+		+		+		+		+		+		+		+		+		+		=

M																						
FM																						
m(m,mF,Fm)																						
k(k,kF,Fk)																						
K(K,KF)																						
FK																						
F $\begin{cases} F^+ \\ F \\ F^- \end{cases}$																						
F _c																						
c(cF,c)																						
C(F _c ,C _F ,C)																						
FC $\begin{cases} FC \\ F/C \end{cases}$																						
CF $\begin{cases} CF \\ C/F \end{cases}$																						
C $\begin{cases} C \\ C_n \\ C_{des} \\ C_{sym} \end{cases}$																						
Main Total		+		+		+		+		+		+		+		+		+		+		=

H																						
Hd																						
A																						
Ad																						
Aobj																						
At																						
Sex																						
Obj																						
Pl																						
N																						
Geo																						
Art and Des																						
Arch																						
Emblem																						
Clouds																						
Blood																						
Fire																						
Mask																						
Abstract																						
Main Total		+		+		+		+		+		+		+		+		+		+		=

POPULARITY-ORIGINALITY

P																						
O																						

EXPLANATION OF SCORING SYMBOLS

LOCATION

W Whole Blot

- W** intended use of whole blot but part or parts omitted or cut off
- W.S** whole blot and white space used (tabulate as main W and additional S)
- DW** a detail interpreted, with its meaning assigned to the whole blot without justification (confabulation)

D Large Usual Detail

- D → W** detail interpreted and remainder of blot used as background or W tendency otherwise expressed (tabulate as main D and additional W)
- D,S** white space used in addition to D (tabulate as main D and additional S)

d Small Usual Detail

Dd Unusual Detail

- dd** tiny detail
- de** edge detail
- di** inside detail
- dr** large or small detail combined with rare adjacent areas, or parts of usual areas, or unusual combinations of usual areas

S White Space

- SD** a detail used in addition to S (tabulate as main S and additional D)

CONTENT

- H*** Human Figures
- Hd*** Parts of Human Figures, not Anatomical
- A*** Animal Figures
- Ad*** Parts of Living Animals
- Aobj** Fur Skins, Skulls, and the like
- At** Human Anatomy (dissected parts, x-rays, anatomical charts)
- Obj** All Kinds of Man-Made Objects
- N** Nature (landscapes, mountains, sunsets, rivers, and other scenery)
- Geo** Topographical and Outline Maps and Geographical Concepts like Islands, Gulfs, Channels, not seen in vista
- *Caricatures and mythological figures indicated by parentheses as (H) or (A)

NOTE. Other symbols like Arch (architecture) or Pl (plant) are self-explanatory.

POPULARITY — ORIGINALITY

- P** Popular Responses
- O** Original Responses Found Not More Than Once in 100 Records

DETERMINANTS

- M** **Figures in Human-Like Action** (human, mythological, or animal)
- FM** **Animals in Animal-Like Action**
- m** **Abstract or Inanimate Movement**
- m** form excluded from consideration
- mF** form indefinite
- Fm** definite form in inanimate motion
- k** **Shading as Three Dimensional Expression Projected on a Two Dimensional Plane** (x-ray, topographical map)
- k** form excluded from consideration
- kF** form indefinite
- Fk** definite form with k
- K** **Shading as Diffusion** (smoke, clouds)
- K** form excluded from consideration
- KF** form indefinite
- FK** **Shading as Three Dimensional Expression in Vista or Perspective**
- F** **Form Only, Not Enlivened**
- F +** form more accurate than popular
- F** form on level of popular response
- F -** form less accurate than popular
- Fc** **Shading as Surface Appearance or Texture, Differentiated**
- c** **Shading as Texture (undifferentiated)**
- c** form excluded from consideration
- cF** form indefinite
- C'** **Achromatic Surface Color**
- FC'** definite form with C'
- C'F** form indefinite
- C'** form excluded from consideration
- FC** **Definite Form with Bright Color**
- F/C** combination of F and C where the form is definite and the color used merely to distinguish areas
- CF** **Bright Color with Indefinite Form**
- C/F** combination of C and F where the color is used merely to distinguish areas and the form indefinite (indefinite anatomical chart, political map)
- C** **Color Only**
- C** concrete association to bright color; form and text disregarded (blue: sky or water, red: fire, blood)
- C_n** color naming
- C_{des}** color description
- C_{sym}** color symbolism — abstract association to bright color (Spring, Fall, Gayety)

APPENDIX H

DATA FOR STUDY OF VALUES

TABLE XXII
STUDY OF VALUES
ANDERSON COLLEGE

Case No.	1	2	3	4	5	6	7	8	9	10	11	13	14
Theoretical	34	37	33	37	32	34	37.5	46	33	35	31	41.5	33
Economic	34	36	34	47	30	36	36.5	35	27	31	31	37.5	30
Aesthetic	35	28	32	28	39	29	34	46	33	29	31	24.5	32
Social	50	42	47	37	48	49	46	34	52	49	45	33	47
Political	29	42	40	40	34	39	34	47	40	38	41	53	39
Religious	58	55	54	51	57	53	52	32	55	58	61	50.5	59

TABLE XXIII
STUDY OF VALUES
OBERLIN COLLEGE

Case No.	15	16	17	18	19	20	21	22	23	25	26	27	28	29
Theoretical	44	34	35	41	27	36	42	36	25	34	23	43	41.5	38
Economic	36	32	40	35	36	23	13	28	30	30	35	26	22.5	41
Aesthetic	31	39	35	37	36	46	57	47	41	40	48	40	35	37
Social	45	49	35	42	50	38	44	44	50	46	47	43	51.5	44
Political	34	25	44	35	33	34	30	34	38	41	37	36	39.5	33
Religious	50	61	51	50	58	63	54	51	56	49	50	52	50	47

TABLE XXIV
STUDY OF VALUES
UNIVERSITY OF CHICAGO

Case No.	30	31	32	33	34	35	36	37	38	40	41	42	43	44
Theoretical	43	43	35	46	44	31	40	47	43	41	47	69	31	36
Economic	29	37	23	29	22	29	25	22	25	33	32	10	21	28
Aesthetic	48	51	54	46	44	46	36	44	40	40	30	40	48	39
Social	34	24	39	37	40	44	44	32	47	40	48	34	54	47
Political	38	51	37	33	32	33	36	41	40	39	29	37	40	33
Religious	48	34	52	49	58	57	59	54	45	47	54	50	46	57

TABLE XXIV continued

Case No.	150	151	152	154	155	156	157	158	159	160	161	162	163	164
Theoretical	46	36	47	32	32	33	50	46	32	37	35	38.5	31	36
Economic	34	21	26	32	37	23	27.5	25	33.5	35	30	45	39	33
Aesthetic	50	49	41	28	40	46	26	30	36	43	38	31.5	44	39
Social	37	41	40	53	43	43	39.5	43	40.5	35	41	33.5	43	49
Political	35	38	29	37	31	41	37	34	42	37	36	33.5	31	31
Religious	38	55	57	58	57	54	60	62	55	53	60	58	52	52

TABLE XXV
STUDY OF VALUES
CHEMISTRY

Case No.	85	86	88	89	90	93	94	95	96	98	99	97	92	91	87	84
Theoretical	59	51	50	61.5	56	56	36	54	48	58	54	61	52	48	51	53
Economic	40	34	30	50	42	26	36	43	42	32	33	46	35	19	32	25
Aesthetic	39	30	45	30	28	31	38	35	45	39	66	39	38	41	42	43
Social	34	33	34	41	36	41	40	22	39	28	25	28	26	47	41	39
Political	38	54	34	36	46	40	41	45	27	44	33	37	45	37	41	41
Religious	30	38	47	21.5	32	46	49	41	39	39	29	29	44	48	33	39

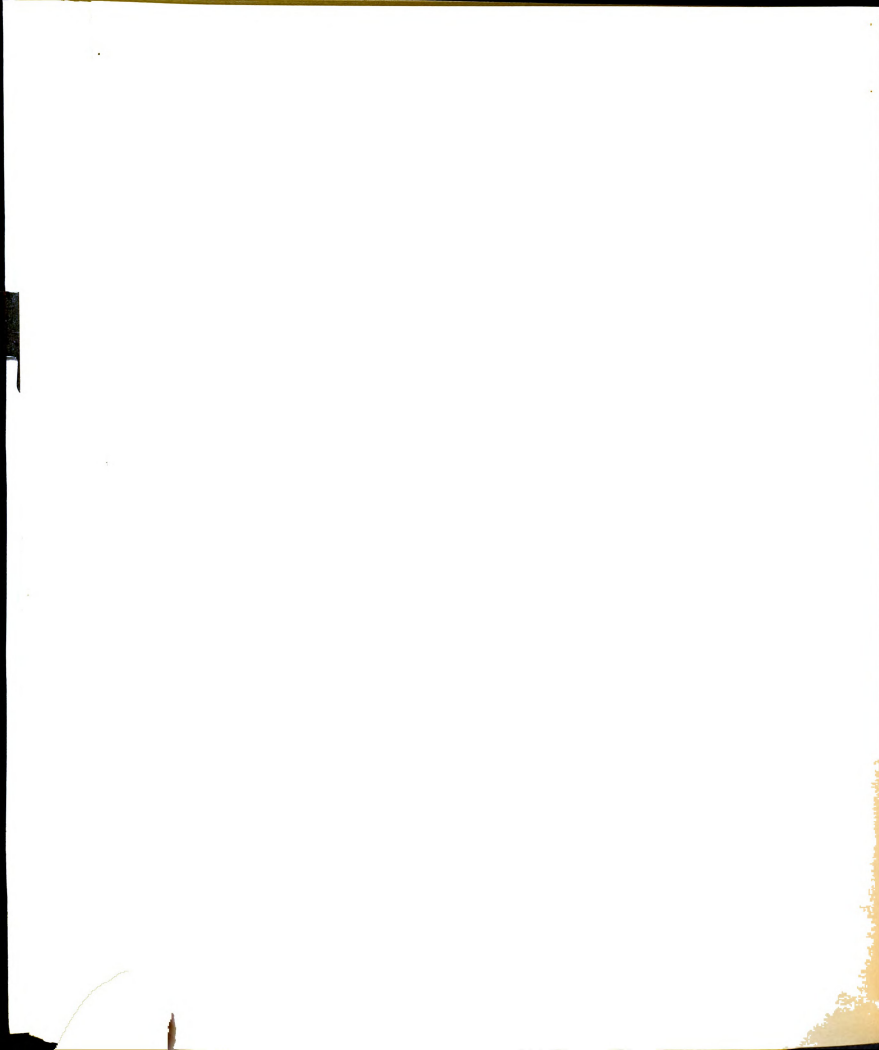


TABLE XXVI
STUDY OF VALUES
PHYSICS, MATHEMATICS, ELECTRICAL ENGINEERING

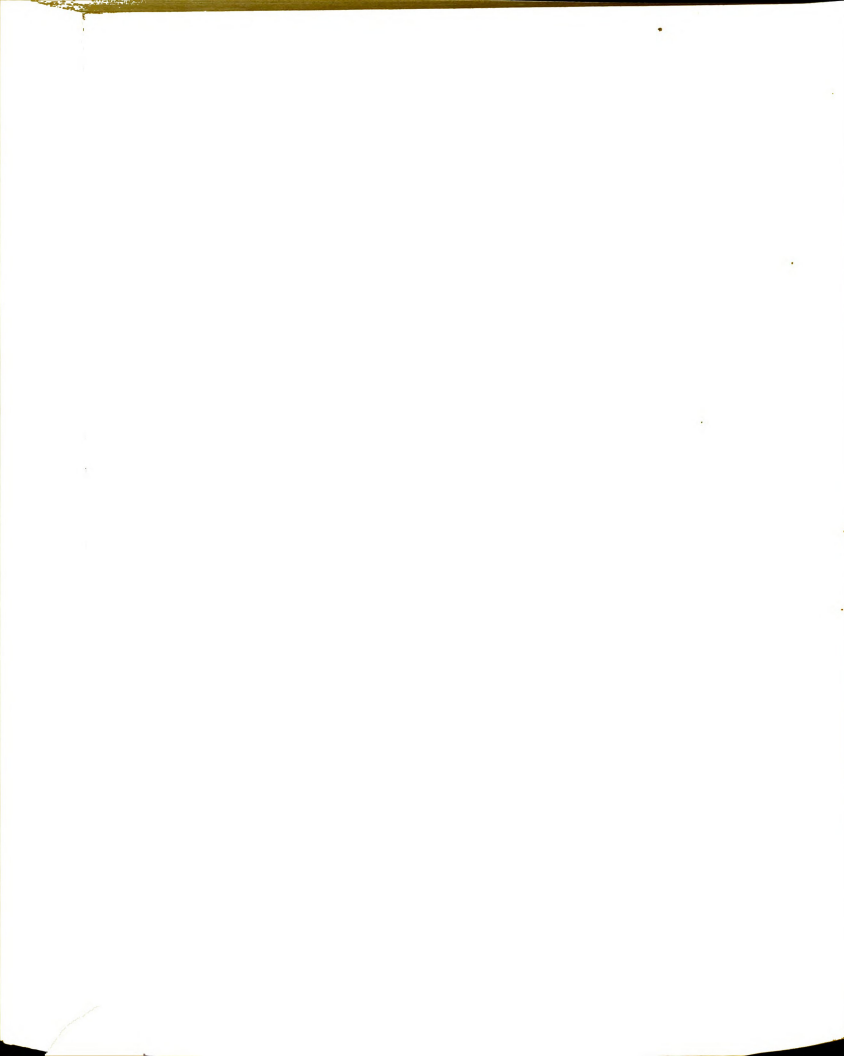
Case No.	64	65	66	67	68	69	70	71	72	73	74
Theoretical	47	54	52	60	52	49	42	50	44	44	58
Economic	30.5	44	45	46	43	42	45.5	49	41	40	42
Aesthetic	46	37	37	43	42	38	36.5	25	38	25	35
Social	34.5	37	20	26.5	32	28	40	27	34	38	33
Political	30.5	40	42	38.5	30	35	40.5	43	36	41	36
Religious	51.5	28	44	26	41	48	35.5	46	47	52	36

TABLE XXVII
STUDY OF VALUES
AGRICULTURAL ENGINEERING

Case No.	49	50	51	52	54	55	56	57	58	59	61	48
Theoretical	48	53	45	40	37	54	44	50	40	54	40	44
Economic	48	47	45	39	50	48	42	41	40	55	54	25
Aesthetic	34	33	37	32	25	31	32	24	30	34	35	45
Social	41	32	31	37	40	29	30	31	41	36	35	40
Political	39	34	38	47	42	41	45	47	44	31	41	32
Religious	30	41	44	45	46	37	47	47	45	30	35	54

TABLE XXVIII
STUDY OF VALUES
CHEMICAL ENGINEERING

Case No.	76	77	79	80	81	82
Theoretical	53.5	60	44	34	47	33
Economic	35	43	50	54	23	49
Aesthetic	51.5	33	51	32	33	40
Social	24.5	39	25	21	41	34
political	40.5	34	39	50	44	42
Religious	35	31	31	49	52	42



10/10/10

[illegible]

Pocket has: 2 Sapsols.

PROFILE O

	70			
High	60			
	50			
	40			
Average	30			
	20			
Low	10			
		Theoretical	Economic	Aesthetic

High and low scores. A score on one or low if it falls outside the following limits of all scores for that value, i.e., 1 Probable Error is rounded to the nearest

Theoretical	34-46
Economic	34-46
Aesthetic	34-46

Outstandingly high and low scores. A score is distinctive if it is higher or lower than the range of 82 per cent of all scores for

Theoretical	29-51
Economic	29-51
Aesthetic	27-53

The *Manual of Directions*, page 9, served as the standardization group

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GROUP RORSCHACH BLANK

Name.....

Age.....

Date.....

Occupation.....

INSTRUCTIONS

You will see on the screen ten inkblot pictures.

Your task is to write down what these inkblots, or any parts of them, resemble or look like to you.

You will see each inkblot for three minutes.

Always write your answers on the right hand side of the open double page, and do not concern yourself with the left hand side until instructed to do so.

Turn the page each time the slide is changed.

Do not be disturbed if the light is not very bright while you are looking at the inkblots and writing your answers, handwriting is not important.

When the first slide is on the screen, open this blank and record your answers where it says:

"Write your answers to inkblot I here"

Number your answers for each inkblot.

SUPPLEMENTARY
MATERIAL

INKBLOT I

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot I Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT II

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot II Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT III

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot III Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT IV

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot IV Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT V

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

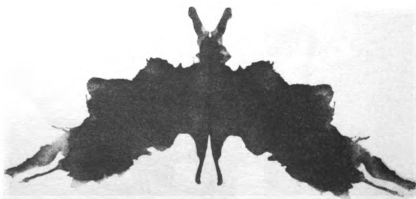
Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot V Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT VI

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

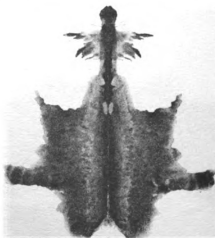
Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot VI Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT VII

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

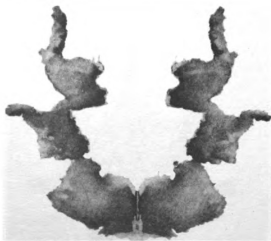
Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot VII Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT VIII

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

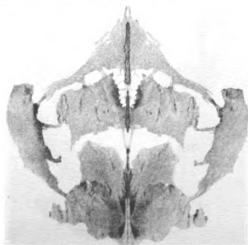
Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot VIII Here

Before you turn to the next page, draw a line under your last answers.

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INKBLOT IX

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

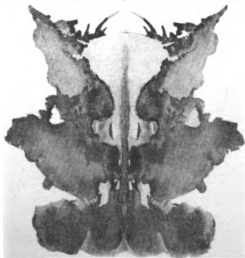
Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot V Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT VI

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot VI Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT VII

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

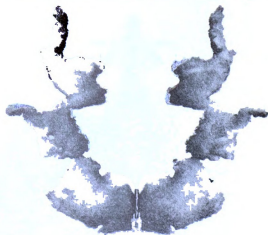
Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot VII Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT VIII

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot VIII Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT IX

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot IX Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT X

INSTRUCTIONS FOR INQUIRY

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape

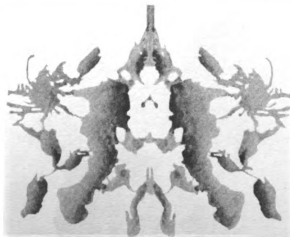
Color

Movement

Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.



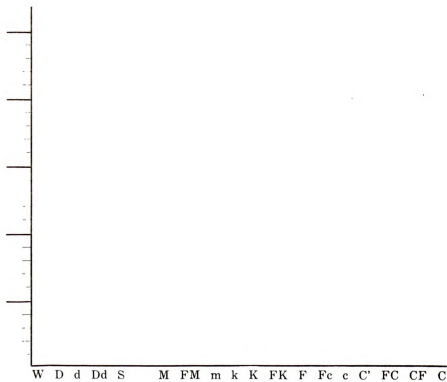
Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot X Here

Before you turn to the next page, draw a line under your last answers.

This is the end, you need not turn the page again.

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Scoring after Klopfer.

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Number of R _____		
T/R) 60° <30° (+, -) _____		
Refusal (✓) _____		
LOCATION	W (+, -, V, B) _____	
	Dd (+) _____	
	S (+) _____	
	Suc (r, l) _____	
CONTENT	P, Com (—) _____	
	O (+, B) _____	
	At, Sex (+) _____	
	Range (+, -) _____	
FORM	F% (+, -) _____	
	F (V, B, E) _____	
SHADING	Shading Shock (<u>±</u>) (✓) _____	
	FK, Fc (+, -) _____	
	c (+) _____	
	C' (+) _____	
	K, k (+) _____	
MOVEMENT	M (+, -, B, r, d) _____	
	FM, FM:M (+, -) _____	
	m (+) _____	
	Total Movement (+, -) _____	
COLOR	Color Shock (<u>±</u>) (✓) _____	
	FC (—, B) _____	
	CF, CF:FC (+, -) _____	
	C) 1, Cn (+) _____	
	Total Color (+, -) _____	
Color: Movement (+, -) _____		
Total Number of Checks		

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STUDY OF VALUES

REVISED EDITION

Gordon W. Allport · Philip E. Vernon · Gardner Lindzey

Part I

DIRECTIONS: A number of controversial statements or questions with two alternative answers are given below. Indicate your personal preferences by writing appropriate figures in the boxes to the right of each question. Some of the alternatives may appear equally attractive or unattractive to you. Nevertheless, please attempt to choose the alternative that is *relatively* more acceptable to you. For each question you have three points that you may distribute in any of the following combinations.

If you agree with alternative (a) and disagree with (b), write 3 in the first box and 0 in the second box, 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	3	b	0
0	b	3	
	a	2	
a	1	b	2
			1

Do not write any combination of numbers except one of these four. There is no time limit, but do not linger 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.

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The Riverside Press Cambridge

PRINTED IN THE U.S.A.

1. The main object of scientific research should be the discovery of truth rather than its practical applications. (a) Yes; (b) No.
2. Taking the Bible as a whole, one should regard it from the point of view of its beautiful mythology and literary style rather than as a spiritual revelation. (a) Yes; (b) No.
3. Which of the following men do you think should be judged as contributing more to the progress of mankind? (a) Aristotle; (b) Abraham Lincoln.
4. Assuming that you have sufficient ability, would you prefer to be: (a) a banker; (b) a politician?
5. Do you think it is justifiable for great artists, such as Beethoven, Wagner and Byron to be selfish and negligent of the feelings of others? (a) Yes; (b) No.
6. Which of the following branches of study do you expect ultimately will prove more important for mankind? (a) mathematics; (b) theology.
7. Which would you consider the more important function of modern leaders? (a) to bring about the accomplishment of practical goals; (b) to encourage followers to take a greater interest in the rights of others.
8. When witnessing a gorgeous ceremony (ecclesiastical or academic, induction into office, etc.), are you more impressed; (a) by the color and pageantry of the occasion itself; (b) by the influence and strength of the group?

	a	b				
	☐	☐				
			a		b	
	☐		☐		☐	
		a		b		
	☐	☐		☐		
			a	b		
	☐		☐	☐		
					b	
	☐				☐	
		a		b		
	☐	☐		☐		
			a	b		
	☐		☐	☐		
Total						
	R	S	T	X	Y	Z

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 by writing, in the appropriate box at the right, a score of 4, 3, 2, or 1. To the statement you prefer most give 4, to the statement that is second most attractive 3, and so on.

Example: If this were a question and the following statements were alternative choices you would place:

4 in the box if this statement appeals to you most.

3 in the box if this statement appeals to you second best.

2 in the box if this statement appeals to you third best.

1 in the box if this statement represents your interest or preference least of all.

		4		
	3			
				2
			1	

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 state your preference, you may omit the question. Be sure not to assign more than *one* 4, *one* 3, etc., for each question.

- Do you think that a good government should aim chiefly at — (*Remember to give your first choice 4, etc.*)
 - more aid for the poor, sick and old
 - the development of manufacturing and trade
 - introducing highest ethical principles into its policies and diplomacy
 - establishing a position of prestige and respect among nations
- In your opinion, can a man who works in business all the week best spend Sunday in —
 - trying to educate himself by reading serious books
 - trying to win at golf, or racing
 - going to an orchestral concert
 - hearing a really good sermon
- If you could influence the educational policies of the public schools of some city, would you undertake —
 - to promote the study and participation in music and fine arts
 - to stimulate the study of social problems
 - to provide additional laboratory facilities
 - to increase the practical value of courses
- Do you prefer a friend (of your own sex) who —
 - is efficient, industrious and of a practical turn of mind
 - is seriously interested in thinking out his attitude toward life as a whole
 - possesses qualities of leadership and organizing ability
 - shows artistic and emotional sensitivity
- If you lived in a small town and had more than enough income for your needs, would you prefer to —
 - apply it productively to assist commercial and industrial development
 - help to advance the activities of local religious groups
 - give it for the development of scientific research in your locality
 - give it to The Family Welfare Society
- When you go to the theater, do you, as a rule, enjoy most —
 - plays that treat the lives of great men
 - ballet or similar imaginative performances
 - plays that have a theme of human suffering and love
 - problem plays that argue consistently for some point of view

	d	b	c	a	
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	a	b	c	d	
	b	c	d	a	
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	d	a	b	c	
	a	b	c	d	
	b	c	d	a	
	c	d	a	b	

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 occupational organization and associates
 - d. ideals of charity

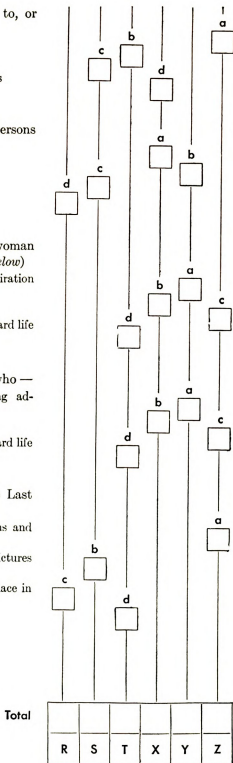
13. To what extent do the following famous persons interest you —
- Florence Nightingale
 - Napoleon
 - Henry Ford
 - Galileo

14. In choosing a wife would you prefer a woman who — (*Women answer the alternative form below*)
- a. can achieve social prestige, commanding admiration from others
 - b. likes to help people
 - c. is fundamentally spiritual in her attitudes toward life
 - d. is gifted along artistic lines

(For women) Would you prefer a husband who —

- a. is successful in his profession, commanding admiration from others
- b. likes to help people
- c. is fundamentally spiritual in his attitudes 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 aspirations 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. the quintessence of harmony and design





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. $1\frac{1}{2}$ for each alternative. The sum of the scores for (a) and (b) must always equal 3.

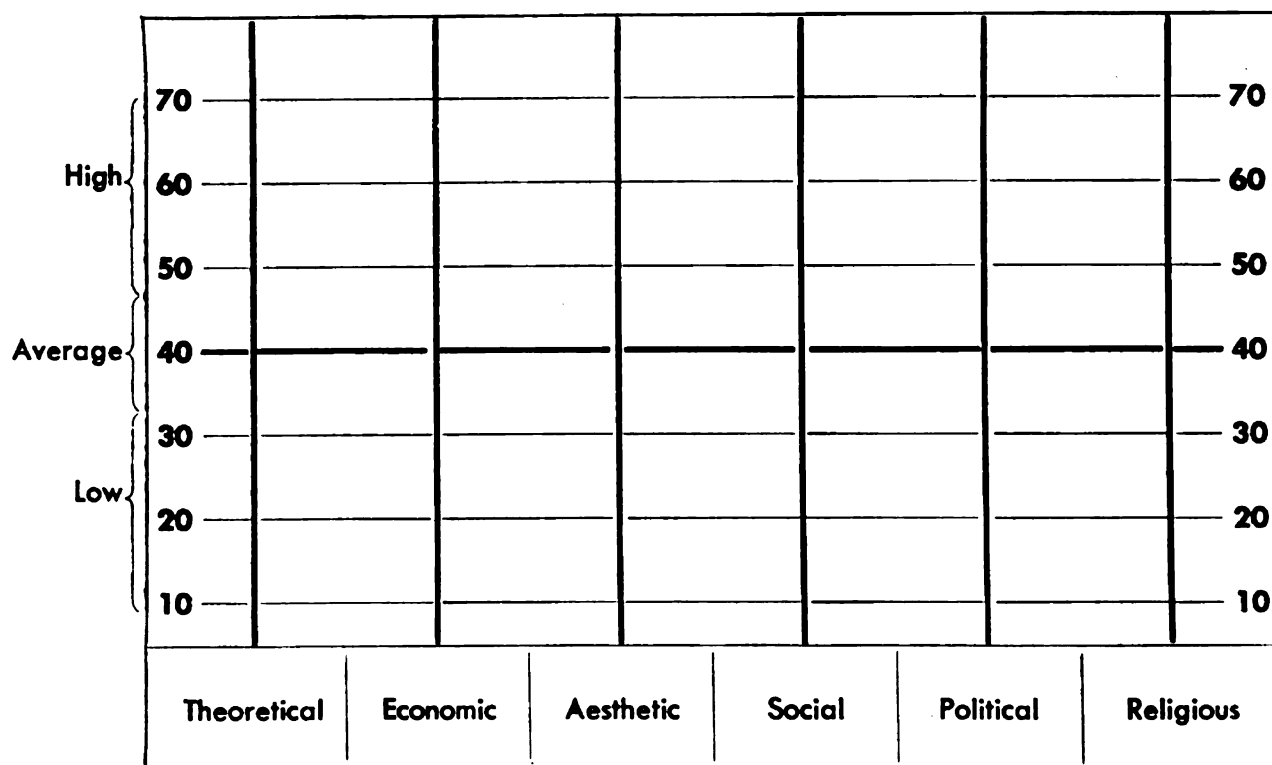
Part II. $2\frac{1}{2}$ for each alternative. The sum of the scores for the four alternatives under each question must always equal 10.

2. Add the vertical columns of scores on each page and enter the total in the boxes at the bottom of the page.
3. Transcribe the totals from each of the foregoing pages to the columns below. For each page enter the total for each column (R, S, T, etc.) in the space that is labeled with the same letter. **Note that the order in which the letters are inserted in the columns below differs for the various pages.**

Page Totals	Theoretical	Economic	Aesthetic	Social	Political	Religious	The sum of the scores for each row must equal the figure given below.
Part I							
Page 2	(R)	(S)	(T)	(X)	(Y)	(Z)	24
Page 3	(Z)	(Y)	(X)	(T)	(S)	(R)	24
Page 4	(X)	(R)	(Z)	(S)	(T)	(Y)	21
Page 5	(S)	(X)	(Y)	(R)	(Z)	(T)	21
Part II							
Page 7	(Y)	(T)	(S)	(Z)	(R)	(X)	60
Page 8	(T)	(Z)	(R)	(Y)	(X)	(S)	50
Page 9	(R)	(S)	(T)	(X)	(Y)	(Z)	40
Total							240
Correction Figures	+ 3	- 1	+ 4	- 3	+ 2	- 5	
Final Total							240

4. Add the totals for the six columns. Add or subtract the correction figures as indicated.
5. Check your work by making sure that the total score for all six columns equals 240. (Use the margins for your additions, if you wish.)
6. Plot the scores by marking points on the *vertical lines* in the graph on the next page. Draw lines to connect these six points.

PROFILE OF VALUES



High and low scores. A score on one of the values may be considered definitely high or low if it falls outside the following limits. Such scores exceed the range of 50 per cent of all scores for that value, i.e., 1 Probable Error. (These ranges are approximate since each Probable Error is rounded to the nearest whole number.)

Theoretical 34-46	Social 35-45
Economic 34-46	Political 35-45
Aesthetic 34-46	Religious 33-47

Outstandingly high and low scores. A score on one of the values may be considered very distinctive if it is higher or lower than the following limits. Such scores fall outside the range of 82 per cent of all scores for that value, i.e., exceed 2 Probable Errors.

Theoretical 29-51	Social 30-50
Economic 29-51	Political 31-49
Aesthetic 27-53	Religious 25-55

The *Manual of Directions*, page 9, gives detailed norms for 1816 college students who served as the standardization group for the *Study of Values*.

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FEB 23 1960
JUN 11 1960
JUL 7 1961

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Project 1, 2: 2 days

Project 1, 2: 2 days

