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An Investigation Into the Use of Psychological Tests as an Aid in the Selection of Candidates for the Diocesan Priesthood

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AN INVESTIGATION INTO THE USE OF PSYCHOLOGICAL
TESTS AS AN AID IN THE SELECTION OF
CANDIDATES FOR THE DIOCESAN
PRIESTHOOD

by

LE ROY A. WAUCK

A DISSERTATION SUBMITTED TO THE FACULTY OF THE
GRADUATE SCHOOL OF LOYOLA UNIVERSITY IN
PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE
DEGREE OF
DOCTOR OF PHILOSOPHY
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1956
VITA

Le Roy A. Wauck was born in Chicago, Illinois, April 1, 1920. He was graduated from St. Ignatius High School, Chicago, Illinois, June, 1937, and from Loyola University, Chicago, with the degree of Bachelor of Philosophy, in June, 1941. He attended the St. Mary of the Lake Major Seminary at Mundelein, Illinois, where he was engaged in theological studies from September, 1941 to September, 1943. He was awarded the degree of Master of Arts in Psychology from the Graduate School of Loyola University of Chicago in February, 1949.

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Without the cooperation, interest, and encouragement of the Right Reverend Monsignor Frank Schneider, Rector of St. Francis Major Seminary, and of Dr. John P. Treacy, Director of the Department of Education at Marquette University, this study would have been impossible.

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CHAPTER I

STATEMENT OF THE PROBLEM

In his encyclical letter, Sacra Virginitas, Pope Pius XII clearly urges the use of outside professional assistance in the determination of natural psychological suitability of candidates for the religious life. The great import and responsibility of such a decision necessitates a most careful and exhaustive examination of the candidate, employing the best available means of current scientific knowledge and practice. Such a careful examination of the natural foundations of personality would involve the use of current psychological techniques of assessment.

Several previous writers, priest-psychologists, have foreshadowed this thought and laid the foundations for an advance in careful seminary selection procedures by their pioneer work. These studies will be reviewed in the next chapter.

In the light of the varying results obtained by the previous psychological studies of seminary populations, it would seem that justification exists for a further exploratory analysis of the essential utility and validity.

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of psychological means of assessment relative to seminary populations.

THE PRESENT INVESTIGATION

It is a truism in psychological testing today that a battery or multi-dimensional approach to psychometric evaluation is the most sound and fruitful approach. In attempting to discover a group of tests which will provide satisfactory predictive assistance in the selection of candidates for the religious life, this study will be concerned with:

1. the extent to which each individual measure agrees with an objective criterion of seminary adjustment;
2. the extent to which the measures taken together agree with the criterion of seminary adjustment;
3. the extent to which the measures agree with one another.

Bier, in his study, found that the distribution of scores on the MMPI for seminarians was approximately like that of his other groups, i.e., arts students, law students, dental students, and medical students. His contention is that since the "well adjusted" seminarian is like the "well adjusted" law, medical, college, or dental student, and conversely with the "poorly adjusted," the MMPI is a useful screening device for seminarians. However, since the seminarians are the most deviant group of an already deviant population, he suggests re-standardizing the test so as to make it suitable for

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this special group. Results reported in 1950 seem to indicate that this modification is of no avail.\(^3\) This suggests that perhaps the basic weakness lies in the nature of the paper-pencil inventory itself. Are there other current approaches to the assessment of personal adjustment which might be fruitful avenues? The use of the projective techniques has, to this writer's knowledge, never been attempted with a seminary population. Such a use would obviate the necessity for restandardization, and avoid the difficulties involved in the suitability of certain items on the paper-pencil inventories.

In a personal conversation in the Spring of 1954, Starke Hathaway, the co-author of the MMPI, assured the present writer most emphatically that he did not believe that the approach to the adaptation of the MMPI to special groups and populations through item changes and/or restandardization to be necessary or useful. He cautioned that one must always take the special nature of any given population into account when interpreting test results with the MMPI, but beyond that saw no special need for modification or revision. His attitude, of course, presupposes an essential faith in the validity of the MMPI as a test or measure of personal adjustment.

It is exactly this assumption relative to the special population in question which this study wishes to check. This study is concerned with how well the best in current psychological evaluation techniques accords with a criterion based upon close and intimate observation of seminarians over a period of years.

\(^3\) Private communication discussed in next chapter.
The exact nature of the tests employed and the procedures of analysis will be the burden of the third chapter.
CHAPTER II

PREVIOUS RESEARCH

The earliest published work concerning itself with this problem was that of Thomas Verner Moore in 1936. After studying the differential rates of insanity among religious, single, married, and divorced persons, Moore was impressed by the disproportionately high frequency of functional mental disorders prevailing among both secular and order priests and among the members of the religious Sisters and Brothers. Since there was no doubt in Moore's mind that this situation was largely accounted for by the fact that the religious life, in terms of natural motivations, held out strong attractions to those who might be called "psychosis-prone," he argued that this high rate of mental breakdown could be markedly reduced by improved selection procedures. At that time he presented a rating scale to be employed by those responsible for the evaluation of candidates based on certain prodromal factors associated with the various forms of mental illness.


Apparent nothing further was done by Catholics in this area of investigation until 1942. In that year, two studies appeared in the Studies in Psychology and Psychiatry of the Catholic University of America. That of Thomas J. McCarthy\(^3\) was published in June of that year, and a study by Sister Richarda Peters\(^4\) in the following December. Both of these studies employed psychological tests and a rating scale. Neither of them were normative studies in the sense that they attempted to ascertain the validity of these tests in relation to seminary populations. Both studies investigated the personality traits of seminarians in the one case, and of novices in the other, by means of the tests and rating scales, in the hope of finding certain common or "g" factors which would characterize the personality of the student aspiring to the religious life. It is important to note that neither of these studies attacked the basic problem involved in using tests for seminary and religious populations, that is, the assumption of validity in the situation in question.

McCarthy used four tests: The Bernreuter Personality Inventory, the Bell Adjustment Inventory, the Allport-Vernon Study of Values, The Otis Intelligence Test (for minor seminarians), the American Council Psychological Examination (for major seminarians), and a specially devised faculty rating scale. Sister Richarda employed the same tests, with the exception of the


Otis, and modified the rating scale to suit her female novice population. The experimental procedures and design in both were virtually the same. Since McCarthy's study is directly concerned with a male seminarian population, only his findings are relevant to the present research.

McCarthy intercorrelated the scores obtained from the measures which he employed and submitted the data to further statistical treatment. In both groups in his research, i.e., the major and the minor seminary groups, McCarthy found two general or "g" factors.

The first "g" factor was identified as a schizoid factor. It was made up of three Bernreuter measures \( B_1 - N, B_3 - I, F_1 - C \) and five Bell Adjustment measures (home, health, social, emotional, and total adjustment). The second "g" factor, consisting of the ten traits in the faculty rating scale, was identified as a factor of general fitness for continuance in seminary life.

....the average seminarian in comparison with the average student of his school level manifested a little higher "neurotic tendency," a higher degree of self-consciousness and a more unsatisfactory total adjustment as measured by the Bell scale. With regard to introversion and sociability as measured by the Bernreuter scale his scores are about the same as the average student's. In the Allport-Vernon Study of Values his aesthetic, social, political, economic, and theoretical interests are about average but his religious interests are significantly high and are clearly the dominant ones in his scale of interests. He is more submissive than the average student as measured by the Bernreuter and he is average with regard to intelligence.5

5 McCarthy, "Personality Traits," P. 38.

In 1947, in the Studies in Psychology and Psychiatry, Henry R. Burke published his dissertation, "Personality Traits of Successful Minor Seminarians." Burke stressed the importance of the problem of establishing a suitable battery of tests for purposes of selection by citing figures relative to the turnover of the minor seminary population. According to Burke, roughly seventy per cent of those students who enter the first year of a boarding high school minor seminary do not complete the course of studies and reach ordination.

Burke was definitely interested in "discovering a battery of existent standard measures or tests which would be practical for predicting 'success' in the minor seminary..." He also revised McCarthy's Faculty Rating Scale for a minor seminary population and used it as a criterion in relation to the tests. Altogether Burke used fourteen different measures: 1) Terman-McNemar Test of Mental Ability; 2) Sims Score Card for Socio-Economic Status; 3) Religious and Disciplinary Home Environment Questionnaire; 4) A Scale for the Rating of Seminarians; 5) Washburne Social Adjustment Inventory; 6) The Bell Adjustment Inventory; 7) California Test of Personality; 8) A Revised Scale for Measuring Developmental Age in Boys; 9) Strong Vocational Interest Blank; 10) Cleeton Vocational Interest Inventory; 11) Allport-Vernon Study of Values; 12) Stanford Achievement Test; 13) Iowa

7 Ibid., P. 2.
8 Ibid., P. 3.
Grammar Information Test; 14) Test in Religious Information for High School Students.

With regard to the findings derived from the test data, Burke states:

Mean I.Q.'s of 111.8 (S.D.=14.5) for all entering first year students, of 116.5 (S.D.=13.6) for successful first year students, and of 117 (S.D.=12.0) for fourth year students, indicate that the minor seminary does function selectively as far as intelligence goes.9

Here the inference is that if one could establish an optimal IQ and use it as a basis for selection, some of the turnover would be eliminated.

Boarding-school minor seminarians in their responses to the personality measures used in this study do not seem to differ significantly from average high school boys. Except on the "California Test of Personality," which has many boy-meets-girl items, surviving successful minor seminarians seem to make scores indicating slightly better than average adjustment.

Still, the personality measures used in this study can in no sense be used to predict who will be a successful minor seminarian. The Washburne Inventory, as a matter of fact, is the only personality measure yielding scores that show any correlation with scores on "A Scale for the Rating of a Seminarian," with survival or success....

Interest inventories....seem of little positive use in screening out good material for the seminary....

Correlations....show that the "Study of Values," cannot be used to identify good material for the priesthood.10

Burke found that the intercorrelations of total scores on the three personality tests which he employed fell into a hierarchical triad indicative

9 Ibid., P. 36.
10 Ibid., P. 38.
of a general personality factor, or Personality "g." However, this
Personality-"g" did not correlate significantly with any of the other measures,
or with any other g factor, such as Burke's Environment-"g" and his Achieve-
ment-"g". Only the Achievement-"g" was significantly correlated with survival or
success. Inter-correlations between the three g's are insignificant.11

That is, consistently good academic achievement through
grammar school and first year high school is the best
indication that a seminarian will survive or be rated
high as good material for the priesthood.12

The scores of the minor seminarians on the A-V Study of Values were
in accord with the findings of McCarthy and Peters.

The correlation between survival over two years and ratings
on the faculty rating scale after one year in the minor
seminary is high, \( r = .628 \). This correlation is in a sense a
validation of the scale. The scale does pick out boys who
are good material for the priesthood, and who, in general,
survive.13

The most recent publication which concerns itself in a basic way
with the problem of the suitability of current psychological tests in the
screening of seminary populations is the 1948 doctoral dissertation of
William C. Bier.14

Bier, limiting his study to the Minnesota Multiphasic Personality
Inventory as the most representative of the paper-pencil personality tests
available, attempts to push the question back one step farther and asks to

11 Ibid., P. 43.
12 Ibid.
13 Ibid.
what extent personality measures, standardised on the general population, are applicable to seminary groups, and to what extent changes in norms and content might be necessary when using them with seminarians.

Bier accepts the essential validity of the MMPI as sufficiently demonstrated on the general population. Through a comparison of the performance of seminarians with that of medical, dental, law, and liberal arts groups on the MMPI, he seeks to determine to what extent the norms and content of the items need to be changed for seminarian populations.

In general adjustment the seminary group differed most from the medical and dental groups, and about equally so, as judged by the number of significant differences between the groups. The law group approached closest to the seminary group in general adjustment, and the college groups, in this respect, held something of a middle position.

In order more effectively to study the extremes of the population as providing the most promising, because the purest, pictures of satisfactory and unsatisfactory adjustment, the population was divided into a well-adjusted and poorly adjusted portion, consisting of the top and bottom 27 per cent of each group, showing on a basis of a single total adjustment score, the best and poorest adjustment. An analysis of these two portions of the population revealed that the well-adjusted seminarian differed far more from the poorly adjusted seminarian than he did from the well adjusted members of the four comparative groups.15

Bier points out that the "seminary group manifested the same deviant tendencies as the general population of the study, though in a more marked degree, the seminary group proved to be the most deviant portion of an already deviant population."16

15 Ibid., P. 91.
16 Ibid.
It is undoubtedly true that one can divide the population into a well adjusted and poorly adjusted group on the basis of the distribution of scores on the nine clinical scales of the MMPI. But can one be certain that the result portrays accurately, especially for purposes of selection and prediction, the true state of affairs? Are the students in the top 27 per cent the well adjusted members of the population and the students in the bottom 27 per cent the poorly adjusted? The test criterion of normality or abnormality is taken at its face value, namely, elevation above a T score of 70. Bier justifies this procedure in his review of the validating studies available to him in 1947 and 1948 dealing with the MMPI. No other criterion of adjustment was employed, e.g. faculty ratings, survival, academic achievement, etc.

On the basis of his findings of more marked deviance, for the seminary group, Bier proceeded to an item analysis.

very largely to specify in more concrete and helpful terms the adjustment specific to the seminary group.

The differences in adjustment which served to set the seminary group apart from the other groups appeared to be explained to a large extent by the presence in the MMPI of items which presumably did not apply to a seminarian in his way of life.... It was suggested that such items might more profitably be eliminated in adapting the test to seminary use....17

It is interesting to note that in 1950, after rejecting the unsuitable items and substituting maximally discriminatory items, Bier used the modified version on another religious population. Concerning his results he has this to say: "I find again, as in my original work, a tendency for an

17 Ibid., P. 92.
The questions which arise concerning the value of Bier's study derive from: 1) The lack of an objective criterion of seminarian adjustment to serve as a check on the validity of the MMPI; 2) the method he employed in obtaining the two adjustment-extremes of his population, i.e., the use of a single total adjustment score based upon a simple summation of the T scores of the individual clinical scales. There will be occasion to discuss the use of a single total adjustment score in subsequent pages.

There are two more basic questions, in the form of assumptions, which may be raised relative to the studies of McCarthy, Burke, and Bier. There is, in the first place, an assumption that the individual taking a paper-pencil personality, interest, or attitude inventory is actually possessed of adequate self-knowledge. Despite the use, as in the case of the MMPI, of validity scales, which have some limited value, the tests cannot take into account the matter of a wide range of individual differences with respect to degrees of self-knowledge in the areas and activities surveyed by the questionnaires.

The second assumption is that the subject has a sincere desire to reveal himself as accurately as possible, assuming that he has the ability to do so based upon adequate self-knowledge. Bier did not personally supervise the administration of the MMPI at the various cooperative seminaries. The writer knows of at least one instance wherein, due to inadequate understanding and/or motivation, some of the seminarians vied with one another during the

18 Private communication.
group administration of the test to see who could give the "craziest" answer. Such an occurrence does not, of course, necessarily invalidate the study by any means; but it does pose a problem.
CHAPTER III

The present study is an investigation of the Kuder Interest Inventory, The Ohio State Psychological Examination, The Minnesota Multiphasic Personality Inventory, and the Group Rorschach in relation to a major seminary population of 206 persons.

It does not concern itself as such with the so-called personality traits of major seminarians. In this way it distinguishes itself from the study of McCarthy. Since it does concern itself with the relationship between the tests and the faculty rating scale, it is similar to Burke's work. However, Burke's population was that of several minor seminaries, and the tests he employed were quite different. The differences between Bier's investigation and the present effort have been sufficiently elaborated upon above so as to need no further explanation.

The Kuder, the Ohio State, and the MMPI represent the most widely used current measures of human psychological functioning. They have been found to be clinically useful. Each of these tests will be taken up individually in the following section. The Kuder is a measure of occupational or vocational interest. The Ohio State is a power measure of college aptitude, and the MMPI attempts to assess personal adjustment or mental health. No known study with seminarians exists which utilizes all three measures in combination. Apparently a large number of seminary officials have begun using various psychological
tests, but published results are conspicuous by their absence.¹

The present study adds two additional devices to the total assessment picture, namely, the Group Rorschach, introducing the use of a projective technique to religious adjustment evaluation, and the Faculty Rating Scale. For the present, attention shall be confined to the first of the measures employed, the Ohio State University Psychological Test.

The Ohio State. The form employed in this study was Form 21. This form is the eventual product of twenty earlier forms published between 1919 and 1938. The test is:

designed to evaluate that aspect of general intelligence usually referred to as scholastic aptitude. (It) is of the work-limit or power type and provides a much more accurate appraisal of a student's scholastic potentiality than would a similar time-limit test....

The test is composed of three parts: same-opposites, word relationships, and reading comprehension....In addition to a total score, or intelligence test score, the test also furnishes a score of reading ability which is an additional advantage in scholastic diagnosis and educational counseling.²

Herbert A. Toops,³ who prepared Form 21, reports a reliability coefficient of .93 based upon the administration of two or more forms of the

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³ Ibid., P. 2.
test to 300 students. Toops also reports, in 1941, a validity coefficient of .68 based upon 1030 cases. The criterion was the Point Hour Ratio of college freshmen over a period of one year. Such findings obviously justify the wide acceptance and use which the Ohio State has enjoyed in the prediction of academic success in college.

In 1949, reviewing the status of the Ohio State, J. P. Guilford, a nationally acclaimed authority in the matter of psychological tests and measures, writes:

This well-known examination has gone through numerous revisions, and in these revisions some of the most exacting test-construction procedures have been employed. Its three parts have survived repeated item-analysis and validity studies. With a reported validity coefficient of .68, the total score would seem to offer the best predictions now available for an overall academic-aptitude instrument at the college level.

The Kuder Preference Record: The Form employed in this study is Form BB. This form provides scores in nine general areas of occupational interest: 1) mechanical, 2) computational, 3) scientific, 4) persuasive, 5) artistic, 6) literary, 7) musical, 8) social service, and 9) clerical. This test is widely used and, as can be seen, its major purpose is to indicate relative interest in a fairly small number of rather broad areas rather than in a large number of specific occupations.

4 Ibid.

Although the test was constructed on logical grounds, Kuder bases its validity on the fact that:

Mean profiles for the occupational groups studied... indicate that the names assigned to the various scales are appropriate in terms of the type of occupation entered as well as in terms of the activities for which the scale is scored.6

Ralph Berdie, reviewing the validation studies of the Kuder Preference Record, states:

The results presented by Kuder do show... that each of the 72 occupational groups obtains mean scores on one or more of the nine scales which are statistically different from the mean scores on those scales for a base group of 2,667 men and another base group of 1,429 women.7

Although validation evidence continues to grow, one of the drawbacks has been the relatively small number of cases on which many of the mean profiles are based. However, "Enough data are on hand for the Kuder to be used with some confidence in vocational guidance... The close agreement of Trigg's means and standard deviations with those in Kuder's manual gives one more confidence in the validity of his data for his smaller groups."8

In a more recent evaluation survey of the Kuder, E. S. Bordin indicates that while validation of the Kuder has not been as rigorous as that


of the Strong Interest Blank, nevertheless it comes closest to meeting the standards set by Strong, and "can be considered an acceptable tool for the measurement of interests...." 9

And finally, H. D. Carter, in evaluating the present status of the Kuder as a test, and admitting that there is room for further research to clarify its value, says:

The Kuder Preference Record is a carefully constructed and well planned instrument....it is clearly one of the best available instruments of its type, especially for use with high school students. Its practical values justify extensive use by high school teachers and counselors, and by those engaged in counseling representative groups of adults.10

Kuder reports an average reliability for the different scales of "close to .90."11 The median is .91. No significant data are available on the stability of the interest scores over long periods of time.

The Minnesota Multiphasic Personality Inventory:

This widely used test of personality is so well known so as to make an attempt at detailed description unnecessary. Suffice it to say that the test is made up of 550 items to which the subject answers "true," "false," or "cannot say." The test was constructed on an empirical basis. It furnishes scores, in its original form, on nine personality variables: Hs(Hypochondriasis), D (Depression), Hy (Hysteria), Pd (Psychopathic-deviate), Mf(Masculinity-

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femininity), Pa (Paranoia), Pt (Psychasthenia), Sc (Schizophrenia), and Ma (Hypomania).

The validity of the various scales, as originally reported by the authors, was established by the power of the scales to differentiate test cases from normals. An extensive literature has grown up around this test. A bibliography provided by Cottle, covering the years 1940-1950, lists 215 items. In 1953, Buros lists 283 items in his bibliography.

Recent research has been in a direction away from attempts at validating each specific scale against known clinical categories. The greater strength of the test seems to lie in its use as a screening device employing the technique of profile analysis.

As a general screening test, it appears to be very valuable in psychiatric clinics and hospitals. At the present time, however, it appears to the reviewer that no great reliance may be placed in the belief that the subscales measure what their titles or manuals suggest they test.

Bier, in his review of the validating studies of the MMPI, covering the work of Ellis, Michael and Buhler, Meehl, Morris, Hunt, and Phillips and Wiener, states:


out of a total of 18 studies, the results were positive in 10 cases, doubtfully positive in 4, and negative or mostly negative in 4. This means that the validity studies using objective, clinical criteria of validity were negative in only 22 per cent of the cases.16

Writing in 1953, Cottle, in his extensive review of MMPI studies, summarizes:

The foregoing discussion of the research available for each of the clinical scales of the MMPI seems to indicate that few of the scales are important in their own right for diagnosis of abnormals. Instead they are more useful in patterns for identification of general types of abnormality and to help clarify complex diagnoses.17

The situation with the MMPI is then quite like that of the Kuder; they both have been found to be clinically useful instruments, but both need investigation to determine their validity in special situations.18

Test-retest coefficients of reliability are reported in the MMPI Manual as ranging from .71 to .83.19 Other studies, reported by Cottle,20 give reliability coefficients ranging from .46 to .90.21

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17 Cottle, MMPI, University of Kansas Press, P. 23.
20 Cottle, MMPI, U. of Kansas Press, P. 5.
The Group Rorschach: This approach may be called a "test" in the broader sense of a technique of personality assessment. Attempts to place it within the same quantitative framework as tests like Kuder and the MMPI, or the Ohio State have met with little success. Essentially it is a projective technique, and differs from the individual Rorschach only in the special method of administration and the modified inquiry.\textsuperscript{22} The rationale and interpretive approach are the same.\textsuperscript{23} In this the Group Rorschach is to be sharply distinguished from the Multiple Choice Rorschach which more closely approximates the usual kind of psychological inventory-type test. In the former, the subjects are permitted to write down freely whatever impressions they may have of the ten ink blots. Subsequently an inquiry period is provided plus a period in which to locate the responses on facsimile blots. In the latter, the subjects are presented with a series of alternative choices to each of the ten blots and are asked to choose those most suitable or...

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Although there have been relatively few studies with the Group Rorschach, the technique has given promise of validity as a screening device.

In the next section on procedure, the exact use, method of administration and scoring of the Group Rorschach shall be described in greater detail. A study of its validity is the chief concern at this point.

Hutt\textsuperscript{26} reports 82 per cent agreement with psychiatric diagnoses using the Group Rorschach in a military setting. In a study of 78 cases, Piotrowski and Candee\textsuperscript{27} report 88 per cent correct differentiation between outstanding and poor mechanical workers.

Harrower reports a study of the relationship between personality and academic performance, using the Group Rorschach. One-hundred and eight students at the McGill University were the subjects.

Of the 108 students examined 94 fell between "excellent" and "just below average," while 14 showed severe personality difficulties or inadequacies. Of those with "poor" or "very poor" personalities, 93 per cent had been in some kind of academic difficulty by the end of the first year and a half while only 11 per cent of those without severe personality difficulties had been in similar trouble.\textsuperscript{28}

One of the most extensive and carefully controlled investigations of the Group Rorschach as a predictive and screening device was carried out by

\textsuperscript{26} Harrower and Steiner, \textit{Large Scale Rorschach}, Charles Thomas, pp. 11-12.

\textsuperscript{27} \textit{Ibid.}, p. 14.

\textsuperscript{28} \textit{Ibid.}, p. 15.
Ruth Munroe at Sarah Lawrence College. The Group Rorschach was administered to 348 entering students. Using the external criteria of adjustment of 1) psychiatric consultation; 2) much faculty consultation; and 3) a committee rating, she found that the Rorschach adjustment ratings (based on her inspection method of scoring) had a coefficient of .55 with the external criteria of adjustment. In addition, she found that the Group Rorschach adjustment rating was slightly more successful in predicting academic achievement than the percentile scores on the ACE. The Group Rorschach had a coefficient of .49, as compared to one of .39 for the ACE, using actual grades attained as a measure of academic achievement or success.

The ACE scores above the 80th percentile were more successful than the corresponding Rorschach adjustment ratings of A in predicting superior academic work. The Inspection Rorschach adjustment rating was much more successful than the ACE in predicting academic failure. Of 36 failing students, 34 had been rated as relatively maladjusted by the Inspection Rorschach whereas the ACE did not discriminate among them at all.

Munroe believes that the Group Rorschach can be a valuable adjunct in various psychological testing situations when combined with other measures.

Combination of the two measures in a contingency table showed very good practical predictive power in relation to academic standing for three quarters of the group. Of


30 Munroe, Prediction of Adjustment, Stanford Press, Pp. 75-76.

31 Ibid., P. 76.
students standing well on both tests, 92.6 per cent did satisfactory work or better, and only one girl failed. Of students who were relatively poor on both tests, 21.6 per cent failed and only 27.8 per cent were rated as satisfactory by the Student Work Committee.32

Steiner, using the Munrode Group Technique in an industrial setting, administered the Rorschach to 144 workers. They were assigned a personality rating on the basis of the Group Rorschach ranging from "excellent" to "poor." In a follow-up of actual work-adjustment one year later it was found that 97% of those who had received an initial Rorschach rating of "above-average to excellent" were making a "satisfactory" adjustment to the work situation, while of those who were initially rated as "average to poor" on the basis of their Rorschach performance 71% were discovered to be making a "poor" adjustment to work.33

Montalto applied the Group Rorschach technique to the problem of the prediction of achievement in college. Ninety women students were the subjects. Academic standing was based on grade points. She found that:

1. Achievers possess more signs of adjustment than non-achievers... 
2. A pattern of signs of academic achievement was evolved which correlated highly with grade points when intelligence scores were held constant....

She summarizes:

From the standpoint of Rorschach signs of adjustment as measurable by the Rorschach Group Method, this study

32 Ibid., Pp. 76-77.
presents evidence that the problem of achievement in college can be studied with a view to "spotting" those who need guidance and special treatment if they are to continue in their academic life successfully.34

Before closing this discussion of the validity of the Group Rorschach it is necessary to cite one more study. This study, carried out by Cronbach at the University of Chicago, is essentially a replication of Munroe's work. However, the findings are not nearly as favorable and as positive as those of Munroe. Cronbach did not believe that the favorable results obtained by Munroe at Sarah Lawrence College might necessarily apply elsewhere, because of the atypical curriculum and approach at that college. He planned his study as a direct repetition of Munroe's study. A summary of his findings is as follows:

The Group Rorschach records of two hundred students in the College of the University of Chicago were compared with grades earned, ACE scores, and criteria of social adjustment....

1) Munroe check-list scores of first-year students correlated .17 with average grade on highly reliable and impartial comprehensive examinations....Correlations for students in the second to fourth year classes were close to zero....

2) no statistically significant relationship could be found between underachievement (grade average with ACE held constant) and any single Rorschach indicator....

5) Heads of dormitory units rated students on emotional adjustment. This rating correlated .31 with Rorschach adjustment rating. This is a significant departure from chance.

6) Sociometric descriptions of adjustment were obtained by having residents in the dormitory fill out a reputation questionnaire. The total rating of adjustment from this report correlated about .20 with Rorschach adjustment rating. This correlation is statistically significant.35

Cronbach emphasizes the essentially negative character of his findings pointing out that the Group Rorschach, objectively scored, failed to predict scholastic success and gave only small correlations with criteria of social and emotional adjustment. Nor does he regard these latter correlations as noteworthy, since correlations of the magnitude of .30, using similar criteria, can be obtained with conventional personality inventories such as the Bernreuter.36

Not much has been done in the determination of the reliability of the Group Rorschach. Altus and Thompson37 secured coefficients of reliability ranging from .13 to a high of .93 in a consideration of 15 Rorschach factors. Their study was primarily an investigation into the validity of the Group Rorschach as a measure of intelligence. Three of the traditional factors claimed to be indicators of intelligence, W, M, and relation of W to Dd, proved to have definite validity. Their reliability coefficients were obtained on a test-retest basis.


36 Ibid., p. 80.

Blanton and Landsman,\textsuperscript{38} using the Munroe Technique for scoring, found a test-retest reliability $r$ of .66 on a group of 126 college juniors over a three month period.

The Faculty Rating Scale: The final measure employed in the present study is the Faculty Rating Scale devised by McCarthy.\textsuperscript{39} A copy of this scale is contained in the appendix. It is a ten item, five point scale concerned specifically with traits on which experienced seminary directors felt every seminarian should be rated. Five descriptions of each trait are given, and the rater is asked to indicate which description best fits the student in question.

McCarthy correlated the ratings of his three judges who rated 229 seminarians on the ten traits. An average of these correlations was .80. He further checked the validity of the scale by having eight priest-faculty members of a seminary rate 85 priests who had been ordained five years or more. The percentage of agreement among the raters was 95 per cent. He then had two other priests who knew of the work of the 85 priests ordained five years or more rate them on the same scale. The tetrachoric coefficient of correlation between these latter raters and the eight seminary faculty raters was .68.\textsuperscript{40}

Although the rating scale which Burke employed in his study was not identical with that of McCarthy, since he revised the scale somewhat so as to


\textsuperscript{40} \textit{Tbid.}, Pp. 8-10.
adapt it to a minor seminary population, his results do provide evidence of the validity of such scales in seminary situations. Burke found the correlation between survival over two years and ratings on the faculty rating scale to be .628.41

PROCEDURE

The tests and the rating scale were administered over a period of three years to 206 major seminarians. The students were in the first and second years of philosophical studies and in the first and second years of theological studies. The mean age is 21.60 with a sigma of 1.35.

Since the administration and scoring of the Ohio State, the Kuder, and the MMPI are well-known and highly standardized, no attempt will be made to review these details here. The reader is referred to the respective manuals for an account of the administration and scoring of these tests. These procedures of administration and scoring were carefully followed in the present investigation. In the case of the Ohio State and the MMPI, the scoring was done with the aid of an IBM scoring machine. In the case of the Ohio State, the MMPI, and the hand-scoring of the Kuder, all scoring procedures (including the operation of the IBM scoring machine) were carried out by trained psychometricians at the Marquette University Guidance Center.

Since the methods of administering and scoring the Group Rorschach are not as well known, some description of the procedures employed in the present study would seem advisable. In general the instructions for group

administration as set forth by Harrower and Steiner. These consist in the presentation to the subjects of the ten Rorschach inkblots one at a time. The blots are presented in the form of lantern slides and are projected on a screen. The slides were standard, glass 3½ x 4 inch slides purchased from the Psychological Corporation. Approximately 35 subjects participated in each administration and were so seated as to have adequate, undistorted view of the screen. They were provided with test booklets which consisted of five plain sheets of standard typing bond paper, plus a sixth sheet at the end containing facsimile reproductions of the inkblots. These are the standard "Location Sheets" obtainable from the Psychological Corporation. The whole was stapled together. The subjects were instructed to number the ten pages in Roman numerals, corresponding to the ten inkblots, and their responses were to be indicated in Arabic numerals. They were told that the ten slides would be presented one at a time, and that they were to write down their impressions of the slides, "the thing it looks most like, and then whatever else you might see. There is nothing right or wrong. Different people see different things. Just write down what you think it looks like, whatever it reminds you of." Three minutes were allowed for each exposure.

42 Harrower and Steiner, Large Scale Rorschach, Charles Thomas, Part I, "Administration and Scoring," Pp. 3-52.

Upon completion of the administration period, the subjects were informed that the ten slides would be projected in order upon the screen once again. This time the purpose would be to have them write down the reasons for their responses, "What about it (your responses) made it look like a....; what were the reasons for your responses." In addition they were told to circle the area and/or areas of the facsimile blots on the Location Sheet which encompassed their percept(s). The numbering of the inquiry period responses and the numbering of each locating circle were to correspond to the Arabic numbering of the responses given during the administration period. Ample time was allowed for all to complete the inquiry and location phase. It was found that with this procedure, the total test could be given in approximately one and one-half hours.

Each of the 206 Rorschach protocols was scored by the examiner according to the Klopfer method.44 Subsequently Ruth Munroe's Inspection Technique was applied to each protocol in order to arrive at a single total adjustment score.

The Inspection (Technique) consists essentially of a check list of the major variations, quantitative and qualitative, commonly used in Rorschach interpretation. An entry is made for each item on the list where the performance of the subject deviates from the normal range....45

Counting up the number of entries on the check list offers a quantitative score for "adjustment" which appears to


correspond well...with the clinical evaluation of the
Rorschach examiner, and also to have substantial meaning
in relation to personality function when checked against
external criteria. 46

Anne Roe, 47 in her studies of the Rorschach of eminent biologists
and of university faculties, finds Munroe's Inspection Technique, "the most
useful means of dealing with these data for group research purposes." 48

Other published research by Zuckerman, 49 Blanton and Landsman, 50
Kates, 51 and Hire 52 narrates the successful and valuable employment of the
Munroe Inspection Technique for scoring Group Rorschach and Individual
Rorschach protocols.

Specific instructions for the use of the Inspection Technique and
the Check List are contained in the two appendices to Munroe's published
monograph.

46 Ibid., P. 94.
47 Anne Roe, "Psychological Examinations of Eminent Biologists,"
48 Roe, "Group Rorschachs of University Faculties," Journal of
49 Stnaley Zuckerman, "A Research Suggestion in Large-Scale
Pp. 300-302.
50 Blanton and Landsman, "The Retest Reliability of the Group
Rorschach and Some Relationships to the MMPI," Journal of Consulting Psychology
Vol. 13, P. 265.
51 Solis L. Kates, "Objective Rorschach Response Patterns Differentiating Anxiety Reactions from Obsessive-Compulsive Reactions," Journal of
52 Hire, "A Group Administration of the Rorschach: Method and
The criterion variable in this study is the sum of the numerical ratings earned by each subject on each of the ten "traits." Thus each of the 206 subjects in this study was assigned a numerical rating score placing him somewhere on the adjustment continuum from "poor" to "excellent." The score for each of the subjects was determined by having the seven prefect-judges rate each man on the entire scale. Subsequently, each of the subjects was rated by the seven prefect-judges sitting as a clinical "staff," and the composite rating recorded. It is this final composite rating upon which the total rating adjustment score for each of the subjects is based. It is important then to note that in the procedure of this study, the final rating score for each subject is not based on an average of the seven separate ratings, but on a composite or consensus rating. In other words all the raters agreed to a single score on each of the ten points for each of the subjects rated. It is felt that this procedure may actually approximate the true rating insofar as it provides for a staff conference at which clarification and discussion takes place. This is, of course, the time-honored technique of assessing or evaluating personality within a hospital or clinical setting. There is every reason to believe that it would be more effective than an average rating in the particular setting of a normal seminary situation.

The acquaintance of a psychologist or psychiatrist with a particular patient in a clinic or mental hospital is actually based upon very short-time observations. These observations are, furthermore, of a definitely limited number and variety of situations. It is practically a truism that, other things being approximately equal, diagnostic or evaluative efficiency tends to
increase in direct proportion to the length of time during which a person is under observation, and in relation to the number of different situations. It is also true, of course, that there is most likely a margin of diminishing returns, but one can seriously question whether this is ever actually reached in most clinical situations.

This particular rating procedure then, comes closer to the type of concrete observation and rating technique employed in the war-time assessment of personnel for strategic services, or to the leaderless group discussion technique of observing and rating individuals than it does to the usual interview-rating technique or situation.

Ordinarily, close personal contact tends to lead to a greater degree of intimate knowledge about a person than other methods of assessment. The relative success of supervisor ratings over the predictive power of the usual psychological tests is clearly evidenced by the results obtained by E. L. Kelly in his attempt to set up a selection program for the Veterans Administration Clinical Psychology Training Program.

In the present context, the seven prefect-judges were seminarians themselves, upper classmen it is true, but the peers of those to be rated.


They had lived for a minimum period of one year to a maximum of four years with the persons whom they rated. Further, they had lived in a degree of proximity which is unequalled except by similar boarding-school or institutional-community living situations. They studied, worked, played, and prayed together. Making all allowances for perceptual distortions stemming from emotional factors, if the knowledge of individual personalities derived from this kind of observation-situation does not lead to a reasonable degree of objective validity, then it is difficult to conceive of a situation in which one might trust a knowledge of personalities based upon continuous daily observation over a period of years. It might be profitable to note, parenthetically, that these seven prefects were appointed to their position of trust and responsibility precisely because they were judged by the seminary faculty and authorities to be relatively freer from the crippling influences of personal-emotional problems which might well tend to distort their judgment.

It was not possible for the present investigator to sit in on the "staffs" during which the 206 subjects were rated. He was permitted, however, to interview each of the seven judges in order to find out what had gone on during the "rating staffs." The interviewing was done on an individual basis. The judges were not informed in advance that they were to be asked about the staff conferences. They were simply called from their rooms; interviewed for approximately one-half hour each, and returned to their rooms with the admonition not to discuss the interview with any of the other judges before all had been interviewed. These precautions were taken to obviate the possibility that any innocent forewarning may have structured their responses in a preconceived fashion.
The results of each interview were substantially alike. Apparently the staff ratings were carried out in a highly professional manner, the prefects being deeply imbued with a high sense of responsibility, justice, and charity. No one prefect-rater tended to dominate the others with his opinions. In the overwhelming majority of the cases there was little significant discussion. In all cases a consensus of rater opinion was achieved with no great difficulty. It is likely that the definiteness of the task and the very nature of seminary "society" itself account for this result.

The fact that the curve based upon the frequency distribution of rating scale scores approximates "normality," can be considered as post-factum circumstantial evidence of the reasonable validity of the rating process.
CHAPTER IV

STATISTICAL ANALYSIS AND RESULTS

Frequency distributions and scatter diagrams were constructed for the variables in this study. In the case of the Kuder scales, the Ohio State, the Group Rorschach, and the rating Scale, raw scores were used throughout in setting up the frequency distributions, scatter diagrams, and subsequent calculations. This was done because it would have been inappropriate to employ the percentile ranks ordinarily used in reporting results on the Kuder and Ohio State. In the case of the MMPI, the T scores were employed in all statistical manipulations.

The frequency distributions and scatter diagrams were inspected by an expert in mathematical statistics.\(^1\) The curves based upon the distributions were all unimodal and fairly symmetrical, so that the requirements for the use of correlation were judged to be satisfied.\(^2\) The results of the scatter diagrams in all cases also indicated the suitability of correlation as a statistical technique in that the relationship between the criterion and all other variables was clearly rectilinear.\(^3\)

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1. The assistance of Dr. William Golomski of the Department of Mathematics during this phase of the dissertation and of Dr. George Zimny and Dr. James F. Horgan of the Department of Psychology, all of Marquette University, is gratefully acknowledged.


3. Ibid., p. 169.
Since the original purpose of the present study was to put together a battery of tests which would serve as an aid in the selection of candidates for the religious life, and more specifically, the life of a diocesan seminarian, the data were set up so that a 22 variable multiple correlation problem could be worked out. In this way it was hoped to get at the predictive value of the battery when compared with the ratings of the prefects for suitability of adjustment in seminary life.

In outline form, this necessitated the calculation of the means and standard deviations of the variables, the simple correlation coefficients, regression coefficients, partial correlation coefficients, multiple coefficient and standard error of estimate.

In view of the extensive nature of the computations involved, and to minimize the possibility of error, all calculations were carried out by means of the International Business Machine Corporation Electronic Data Processing Machine at the Applied Science Division in New York City. The program using the electronic calculator provides many checks including: 1) A double-punch blank column check in reading decimal cards; 2) check sums in reading binary cards and magnetic tape records; 3) all calculations are checked by duplicate calculations; 4) all printing is checked by echo pulses; 5) all key-punching is checked by verifying.

RESULTS

In considering the results of this statistical analysis of the data, the findings are considered, in order of importance relative to the chief objective of this study. The multiple coefficient of correlation between this
battery of tests, and the Faculty Rating Scale as the criterion, is .38 with a standard error of estimate of 4.26. The null hypothesis may be rejected with confidence, since there is only one chance in one hundred that this relationship could have occurred by random sampling. In other words the obtained $r$ is significant beyond the .01 level.\(^4\)

Thus it would appear that the obtained multiple $r$ of .38 indicates a positive but only moderate relationship between the test battery and the Faculty Rating Scale. It would seem then that the battery as such has prognostic value, although it could hardly be considered as a sole criterion of selection. But because it is related to the criterion of observed adjustment, it is obvious that the use of the tests in an adjuvant role can be helpful in clarifying impressions and in increasing the certainty of judgments.

These results compare favorably with results obtained in industry using multiple tests for purposes of selection and prediction.\(^5\)

The next step in the investigation, assuming as proven the usefulness of employing a battery of tests in the selection of candidates for the religious life, is to attempt to determine which, if any, of the individual tests employed were particularly useful in this job of selection. Here attention is directed to the results of the partial coefficients of correlation where the relationship of each of the tests and the criterion has been

\[^4\text{Ibid.}, \text{Table D, P. 609.}\]

examined with the influence of all other variables held constant. The partial r's and the simple r's are set forth in Tables I, II, III, IV and V. For purposes of the present discussion, we are interested primarily in the partial r's between the criterion, that is, the Faculty Rating Scale, and the other tests. An examination of the tables reveals that the majority of the coefficients of correlation between the Faculty Rating Scale and the tests are either zero or of a very low inverse nature. This is with the singular exception of the ratio between the total adjustment score on the Group Rorschach Test and the criterion. Here a low but positive correlation exists. Relative to the other single variables, it would seem that the Group Rorschach Test has made the greatest single contribution to the multiple r. One might perhaps safely conclude in the light of these results that if one were forced to choose one test among the many in the battery which would serve as the best single prognosticator of seminary adjustment, the Group Rorschach would be the test of choice. However, one must keep in mind that a correlation of .24 is practically negligible for purposes of prediction. If one combines this result with many other criteria, e.g. everyday observation, social history, etc., then some positive value is achieved.

It is interesting to note that the predictive value of the Ohio State and the MMPI in this study is practically zero. At least one can say that the judgments of peers and the self-description involved in the MMPI do not seem to be significantly related at all. Equally, sheer intellectual ability does not seem to be judged as predictive of successful adjustment in seminary life and in the priesthood. Perhaps this is only reiteration of
common-sense observation. However, conclusions regarding the screening
effectiveness of the MMPI must be limited to the particular method of analysis
which have been employed, i.e., total adjustment score and individual scales.

It is also important to point out in this respect that the tests
employed have been called upon to do a job of selection and differentiation in
a very difficult setting. The particular population in this study has already
been subjected to several years of selection. Earlier in the selection
process, in the years of the minor seminary, it is unquestionably true that
intelligence and academic ability play a much more important role. This was
brought out clearly in Burke's study wherein he indicates that "the minor
seminary does function selectively as far as intelligence goes." However,
at the major seminary level, once reasonably adequate selection has taken
place in terms of intelligence and academic aptitude, the more important
variables are apparently those which can best be described as involving
motivation and personality integration.

It would seem in the light of the results that the faculty Rating
Scale and the Group Rorschach travel in the general direction of getting at
these broader and more global aspects of personal adjustment.

It may be observed that only two of the nine Kuder interest scales
are significantly related to the Faculty Rating Scale. There is a correlation
of .117 between the Mechanical interest scale and the criterion. This is
barely significant at the .05 level, and although positive, is obviously quite

6 Burke, Personality Traits, Catholic University of America Press,
P. 36.
low. The other significant relationship is an inverse one of -.18 between the Social Service scale and the Faculty Rating Scale. This is significant at the .01 level, but again is so low that it can only be suggestive of a slight trend. The other coefficients of correlation between the Kuder scales and the criterion, with the exception of .05 for the Scientific scale are all negative, but all quite close to zero. The relations between the Kuder scales and the Group Rorschach are all very low and short of statistical significance. The same is true for the most part between the Ohio State total score and the Kuder scales, with the exception of a .26 r between the total Ohio State score and the Literary scale. This is an expected trend, but is not a high degree of relationship although it is significant at the .01 level. An inverse relationship of -.14, significant at the .05 level, is noted between the Ohio State and the Clerical interest scale. In the nature of things this is not unexpected, but again is very low.

The relationships between the Kuder scales and the nine clinical scales of the MMPI while of moderate interest are again generally quite low and of little statistical significance. There are, again, several exceptions, and these are noted as follows, for the interesting light they shed upon the relationships between these two tests: Mechanical and Mf -.25; Scientific and Mf -.21; Persuasive and Hy .20; Persuasive and Pd .25; Persuasive and Ma .20; Musical and Mf .25. These relationships are low, but significant at the .01 level. They point to the existence of certain clusters of traits of
TABLE I

(n-2)TH ORDER PARTIAL CORRELATION COEFFICIENTS AND SIMPLE CORRELATION
COEFFICIENTS BETWEEN THE OHIO STATE, MPI TOTAL ADJUSTMENT SCORE,
GROUP RORSCHACH, AND THE FACULTY RATING SCALE, AND
BETWEEN ONE ANOTHER

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>00*</th>
<th>01</th>
<th>24</th>
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</thead>
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<tr>
<td>1 Faculty Scale</td>
<td>-03</td>
<td>-10</td>
<td>26</td>
</tr>
<tr>
<td>2 Ohio State</td>
<td>-07</td>
<td>-13</td>
<td></td>
</tr>
<tr>
<td>3 MPI Score</td>
<td>-04</td>
<td>-13</td>
<td></td>
</tr>
<tr>
<td>4 Group Rorschach</td>
<td>-01</td>
<td>--</td>
<td></td>
</tr>
</tbody>
</table>

* Upper figure represents the partial r in each instance; lower figure, the simple r.
TABLE II

(n-2)TH ORDER PARTIAL CORRELATION COEFFICIENTS AND SIMPLE CORRELATION COEFFICIENTS BETWEEN THE KUDER INTEREST INVENTORY SCALES AND THE FACULTY RATING SCALE

<table>
<thead>
<tr>
<th>SCALES</th>
<th>PARTIAL r</th>
<th>SIMPLE r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical</td>
<td>0.4</td>
<td>-0.11</td>
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<tr>
<td>Computation</td>
<td>-0.11</td>
<td>-0.05</td>
</tr>
<tr>
<td>Scientific</td>
<td>-0.04</td>
<td>0.05</td>
</tr>
<tr>
<td>Persuasive</td>
<td>-0.08</td>
<td>-0.02</td>
</tr>
<tr>
<td>Artistic</td>
<td>-0.06</td>
<td>-0.02</td>
</tr>
<tr>
<td>Literary</td>
<td>-0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td>Musical</td>
<td>-0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td>Social Service</td>
<td>-0.17</td>
<td>-0.18</td>
</tr>
<tr>
<td>Clerical</td>
<td>-0.02</td>
<td>-0.04</td>
</tr>
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</table>
TABLE III

(n-2)TH ORDER PARTIAL CORRELATION COEFFICIENTS AND SIMPLE CORRELATION COEFFICIENTS BETWEEN THE MMPI CLINICAL SCALES AND THE FACULTY RATING SCALE

<table>
<thead>
<tr>
<th>SCALES</th>
<th>PARTIAL r</th>
<th>SIMPLE r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypochondriasis</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>Depression</td>
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<td>-11</td>
</tr>
<tr>
<td>Hysteria</td>
<td>03</td>
<td>01</td>
</tr>
<tr>
<td>Psychopathy</td>
<td>00</td>
<td>-03</td>
</tr>
<tr>
<td>M-F Interests</td>
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<td>-12</td>
</tr>
<tr>
<td>Paranoia</td>
<td>-02</td>
<td>-12</td>
</tr>
<tr>
<td>Psychasthenia</td>
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<td>-14</td>
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<tr>
<td>Schizophrenia</td>
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<td>-09</td>
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<tr>
<td>Hypomania</td>
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</table>
### TABLE IV

Simple Coefficients of Correlation Between the MMPI Clinical Scales and the Kuder Scales, the Group Rorschach Score, the Ohio State

<table>
<thead>
<tr>
<th>SCALES</th>
<th>Hs</th>
<th>D</th>
<th>Hy</th>
<th>Pd</th>
<th>Mf</th>
<th>Pa</th>
<th>Pt</th>
<th>Sc</th>
<th>Ma</th>
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<tr>
<td>Mechanical</td>
<td>12</td>
<td>-08</td>
<td>-12</td>
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<td>-25</td>
<td>-04</td>
<td>-04</td>
<td>-04</td>
<td>01</td>
</tr>
<tr>
<td>Computation</td>
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<td>01</td>
<td>-03</td>
<td>-01</td>
<td>-15</td>
<td>-03</td>
<td>-01</td>
<td>-07</td>
<td>04</td>
</tr>
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<td>Scientific</td>
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<td>02</td>
<td>03</td>
<td>01</td>
<td>-21</td>
<td>05</td>
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<td>-01</td>
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<td>10</td>
<td>20</td>
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<td>Artistic</td>
<td>-10</td>
<td>00</td>
<td>-05</td>
<td>-05</td>
<td>13</td>
<td>04</td>
<td>-01</td>
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<td>-03</td>
<td>05</td>
<td>-03</td>
<td>15</td>
<td>-07</td>
<td>-01</td>
<td>04</td>
<td>-04</td>
</tr>
<tr>
<td>Musical</td>
<td>-11</td>
<td>-09</td>
<td>-02</td>
<td>-02</td>
<td>25</td>
<td>00</td>
<td>-11</td>
<td>-07</td>
<td>02</td>
</tr>
<tr>
<td>Social Service</td>
<td>-04</td>
<td>03</td>
<td>08</td>
<td>15</td>
<td>02</td>
<td>02</td>
<td>-03</td>
<td>-02</td>
<td>05</td>
</tr>
<tr>
<td>Clerical</td>
<td>-11</td>
<td>12</td>
<td>-09</td>
<td>-07</td>
<td>06</td>
<td>-07</td>
<td>02</td>
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</tr>
<tr>
<td>Ohio State</td>
<td>03</td>
<td>-13</td>
<td>08</td>
<td>-13</td>
<td>14</td>
<td>09</td>
<td>-06</td>
<td>-03</td>
<td>-10</td>
</tr>
<tr>
<td>Group Rorschach</td>
<td>00</td>
<td>-02</td>
<td>09</td>
<td>05</td>
<td>00</td>
<td>-07</td>
<td>-06</td>
<td>-02</td>
<td>05</td>
</tr>
</tbody>
</table>
### TABLE V

**SIMPLE COEFFICIENTS OF CORRELATION BETWEEN THE KUDER INTEREST SCALES AND THE GROUP RORSCHACH AND OHIO STATE**

<table>
<thead>
<tr>
<th>SCALES</th>
<th>OHIO STATE</th>
<th>GROUP RORSCHACH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CORRELATIONS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical</td>
<td>-09</td>
<td>-06</td>
</tr>
<tr>
<td>Computation</td>
<td>-05</td>
<td>02</td>
</tr>
<tr>
<td>Scientific</td>
<td>-03</td>
<td>01</td>
</tr>
<tr>
<td>Persuasive</td>
<td>-01</td>
<td>05</td>
</tr>
<tr>
<td>Artistic</td>
<td>01</td>
<td>-10</td>
</tr>
<tr>
<td>Literary</td>
<td>26</td>
<td>-01</td>
</tr>
<tr>
<td>Musical</td>
<td>02</td>
<td>01</td>
</tr>
<tr>
<td>Social Service</td>
<td>03</td>
<td>-05</td>
</tr>
<tr>
<td>Clerical</td>
<td>-14</td>
<td>06</td>
</tr>
</tbody>
</table>
personality which are related to vocational and occupational interests.7

The coefficients of correlation of each of the nine clinical scales of the MMPI taken separately against the Faculty Rating Scale criterion are all quite low. Four of them reach the .05 level of confidence, but are so low as to make generalization unwarranted. It is interesting to note that all of these are negative or inverse relationships. In other words, the seminarians' scores on the D, Mf, Pa, and Pt scales tend to be slightly negatively related to their scores on the Rating Scale.8

Table VI presents the means and standard deviations for all the variables employed in this study. It is well to remember that in the case of the Kuder and the Ohio State raw scores are indicated. If one converts the mean raw score on the Ohio State into a percentile rank, one finds that the mean seminarian Ohio State total score lies at the 75th percentile.

Although Toops does not provide for the conversion of Ohio State percentiles into IQ's, an approximate knowledge of the mean and modal IQ for the seminary group may be obtained following a method employed by Wrenn.9 In

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8 In a master's thesis still in progress at Marquette University, it was found that no significant differences existed between the medians on any of the clinical scales of those candidates for the religious brotherhood who left and those who remained. N=149 covering the novice classes from 1951 through 1955. The criterion employed in this study was longevity. Brother Robert Godfrey, "A Predictive Study of the MMPI with Candidates for the Religious Brotherhood," unpublished Master's thesis.

TABLE VI
THE MEAN SCORES AND STANDARD DEVIATIONS FOR THE TWENTY-TWO
SCALES AND TESTS EMPLOYED IN THIS STUDY

<table>
<thead>
<tr>
<th>SCALE OR TEST</th>
<th>MEAN SCORES</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty Rating Scale*</td>
<td>22.69</td>
<td>4.62</td>
</tr>
<tr>
<td>Ohio State Total*</td>
<td>103.10</td>
<td>21.38</td>
</tr>
<tr>
<td>MMPI Adjustment Score</td>
<td>56.66</td>
<td>5.48</td>
</tr>
<tr>
<td>Group Rorschach*</td>
<td>14.62</td>
<td>6.45</td>
</tr>
<tr>
<td>Mechanical (Kuder)</td>
<td>62.61</td>
<td>21.87</td>
</tr>
<tr>
<td>Computational</td>
<td>27.82</td>
<td>10.90</td>
</tr>
<tr>
<td>Scientific</td>
<td>55.71</td>
<td>15.66</td>
</tr>
<tr>
<td>Persuasive</td>
<td>68.17</td>
<td>19.24</td>
</tr>
<tr>
<td>Artistic</td>
<td>42.64</td>
<td>14.24</td>
</tr>
<tr>
<td>Literary</td>
<td>53.09</td>
<td>15.27</td>
</tr>
<tr>
<td>Musical</td>
<td>22.56</td>
<td>13.43</td>
</tr>
<tr>
<td>Social Service</td>
<td>96.32</td>
<td>17.92</td>
</tr>
<tr>
<td>Clerical</td>
<td>45.27</td>
<td>14.44</td>
</tr>
<tr>
<td>Hypochondriasis (MMPI)</td>
<td>54.37</td>
<td>7.74</td>
</tr>
<tr>
<td>Depression</td>
<td>51.69</td>
<td>9.20</td>
</tr>
<tr>
<td>Hysteria</td>
<td>57.43</td>
<td>7.07</td>
</tr>
<tr>
<td>Psychopathy</td>
<td>58.11</td>
<td>8.38</td>
</tr>
<tr>
<td>Masculinity-Femininity</td>
<td>60.20</td>
<td>9.86</td>
</tr>
<tr>
<td>Paranoia</td>
<td>55.07</td>
<td>8.20</td>
</tr>
<tr>
<td>Psychasthenia</td>
<td>59.06</td>
<td>9.88</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>58.17</td>
<td>9.23</td>
</tr>
<tr>
<td>Hypomania</td>
<td>55.39</td>
<td>10.05</td>
</tr>
</tbody>
</table>

* Based upon raw scores
an attempt to determine potential research talent in the sciences, Wrenn estimated the IQ's of 187,000 recipients of baccalaureate degrees for the year 1950. To do this, he used the results of ACE's and Ohio States. The ACE scores can be converted into IQ's. Wrenn had Toops convert the Ohio State percentiles into equivalent ACE scores.

Using the table which Wrenn publishes in his study, it may be estimated that the mean IQ for the seminary population is approximately 127. However, if the crude mode is employed, then the estimated IQ for the total seminary population is somewhat higher, being approximately 132.

Table VII provides a picture of the expressed vocational interests of the seminarians in this study, converting the raw scores into percentile ranks for each of the scales. It should be noted that generalizations must be made with great caution, if at all, in view of the rather large degree of spread or scatter of the scores on most of the scales. However, it is significant to note that the dispersion is relatively least on just those scales which represent strong interests, namely, Social Service and Literary activities. This finding squares with the earlier findings reported by Kuder in his manual for clergymen in general. It tends to support the prevalent notion that the clergyman is interested in doing things for the welfare of others, and he is interested in the world of concepts and ideas. However, it should be emphasized that no significant relationship was discovered in this study between this composite self-ideal of the seminarian and the actual

10 Ibid., P. 14.
TABLE VII
THE VOCATIONAL INTERESTS OF SEMINARIANS ON THE KUDER
PREFERENCE RECORD EXPRESSED IN PERCENTILES

<table>
<thead>
<tr>
<th>SCALE</th>
<th>PERCENTILES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical</td>
<td>24</td>
</tr>
<tr>
<td>Computational</td>
<td>21</td>
</tr>
<tr>
<td>Scientific</td>
<td>30</td>
</tr>
<tr>
<td>Persuasive</td>
<td>41</td>
</tr>
<tr>
<td>Artistic</td>
<td>40</td>
</tr>
<tr>
<td>Literary</td>
<td>67</td>
</tr>
<tr>
<td>Musical</td>
<td>75</td>
</tr>
<tr>
<td>Social Service</td>
<td>91</td>
</tr>
<tr>
<td>Clerical</td>
<td>30</td>
</tr>
</tbody>
</table>

rating of successful seminary adjustment by prefects. Apparently a seminarian should possess this interest pattern, but the mere possession of this pattern is no guarantee of successful seminary adjustment. Perhaps one might say that such a pattern of interests is the condition for successful adjustment and not its cause. The cause, once again, apparently lies more in the realm of motivation and personality integration. Interests in ideas and in helping people may be the condition for becoming a successful diocesan priest; they will not in themselves cause him to be such. Thus, the value of the Kuder findings seem to be negative in the sense that failure to show screening evidence of the possession of these interests legitimately raises the question of the suitability of a given candidate for this mode of life. But the
screening evidence of the possession of these interests cannot safely be used for the prediction of individual seminary adjustment or survival.

Because of the generally negative nature of the findings using the technique of multiple correlation, it was decided to analyze the extremes of the population with respect to the twenty-two original variables of the study. The hope here was that the extremely well-adjusted and the extremely poorly adjusted portions of the population (in the light of the criterion) might show significant differences in mean scores on these variables.

To this end the original distribution of Faculty Rating Scores was examined. Inspection revealed very distinctly that the lowest four intervals and the top three intervals contained the 31 worst and 29 best adjusted members of the total population in the light of the criterion.

Means, standard deviations, standard errors of the differences, the F test of differences in variability, and Fischer's t ratios were calculated. In those instances in which the variances were significantly different, the Cochran-Cox method of testing the significance of differences between the means was employed. The results are reported in Table VIII.

The Kuder scales and the Ohio State Total score fail to show any significant differences in means between the two groups. Differences in means on the scales of the MMPI are not significant with two exceptions: the Depression scale mean scores are barely significant in their difference at the

.05 level; the mean Mf scale scores are significantly different beyond the .05 level. In both instances the higher mean scores belong to the group which was rated as best adjusted. This inverse relationship was noted in the simple correlations. In both cases the r was a -.11. This finding, while interesting would not seem to offer much help in relation to the basic concern of this study, i.e., test criteria useful for selection procedures. It would not be possible to generalize to the effect that all students with a relatively elevated D and Mf score on the MMPI give per se evidence of suitability for seminary life and the priesthood. However, the finding does suggest that the more successful seminarian is one who tends to be serious-minded and conscientious and who is possessed of social sensitivity and tact. It seems necessary to interpret the MMPI findings in this way, since the implications of the titles of the various scales cannot be accepted at face value. As Cottle states in his discussion of the interpretation of the various MMPI scales:

The Masculinity-Femininity scale is frequently referred to as an interest scale. It seems to be expressing an interest in activities dealing with inanimate objects (masculinity) versus a liking for activities dealing with people, language, and ideas (femininity). Male teachers will score high on this scale (femininity) because they are interested in working with people. College men as a group score high on this scale.12

A fortiori, it would seem eminently reasonable to substitute the word "preachers" for "teachers," in view of the nature of the calling and work

TABLE VIII
MEANS, STANDARD DEVIATIONS, F AND t RATIOS FOR THE TWO EXTREME GROUPS OF SEMINARIANS ON ALL SCALES

<table>
<thead>
<tr>
<th>SCALES</th>
<th>MEANS</th>
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<th>F</th>
<th>t</th>
</tr>
</thead>
<tbody>
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<td>Faculty Scale B 15.00</td>
<td>1.07</td>
<td>Chosen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P 29.18</td>
<td>1.31</td>
<td>extremes</td>
<td>..69</td>
<td></td>
</tr>
<tr>
<td>Ohio State   B 104.01</td>
<td>21.03</td>
<td>1.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P 100.61</td>
<td>19.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Rorschach B 12.62</td>
<td>6.27</td>
<td>1.13</td>
<td></td>
<td>3.30#</td>
</tr>
<tr>
<td>P 17.61</td>
<td>6.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical    B 57.79</td>
<td>23.14</td>
<td>2.02*</td>
<td>1.51</td>
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</tr>
<tr>
<td>P 65.70</td>
<td>16.27</td>
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<td>Computational B 28.14</td>
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<td></td>
<td>.73</td>
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<tr>
<td>P 26.30</td>
<td>10.49</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Scientific    B 53.31</td>
<td>17.74</td>
<td>1.34</td>
<td></td>
<td>.57</td>
</tr>
<tr>
<td>P 57.70</td>
<td>15.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Artistic      B 68.18</td>
<td>19.21</td>
<td>1.48</td>
<td></td>
<td>.79</td>
</tr>
<tr>
<td>P 63.03</td>
<td>18.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literary      B 51.62</td>
<td>17.18</td>
<td>1.13</td>
<td></td>
<td>.49</td>
</tr>
<tr>
<td>P 49.36</td>
<td>18.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Musical       B 23.41</td>
<td>16.91</td>
<td>1.87*</td>
<td>.104</td>
<td></td>
</tr>
<tr>
<td>P 23.24</td>
<td>12.34</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Soc. Service  B 100.59</td>
<td>16.81</td>
<td>1.59</td>
<td></td>
<td>1.37</td>
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<tr>
<td>P 98.85</td>
<td>21.23</td>
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<tr>
<td>Clerical      B 44.34</td>
<td>9.84</td>
<td>2.09#</td>
<td>1.33</td>
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<tr>
<td>P 41.36</td>
<td>11.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypochondriasis B 53.24</td>
<td>9.17</td>
<td>1.78*</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>P 53.33</td>
<td>6.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression    B 53.03</td>
<td>10.09</td>
<td>2.12*</td>
<td>2.04*</td>
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</tr>
<tr>
<td>P 48.39</td>
<td>6.92</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Hysteria      B 57.93</td>
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<td>1.23</td>
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<td>.08</td>
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<td>P 57.76</td>
<td>7.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychopathy   B 57.31</td>
<td>9.38</td>
<td>1.32</td>
<td></td>
<td>.02</td>
</tr>
<tr>
<td>P 57.36</td>
<td>8.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masculin-Fem. B 63.28</td>
<td>9.55</td>
<td>1.14</td>
<td>2.36*</td>
<td></td>
</tr>
<tr>
<td>P 57.00</td>
<td>10.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paranoia      B 56.69</td>
<td>8.26</td>
<td>1.23</td>
<td></td>
<td>.81</td>
</tr>
<tr>
<td>P 55.03</td>
<td>7.14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychasthenia B 60.31</td>
<td>11.44</td>
<td>1.45</td>
<td></td>
<td>1.44</td>
</tr>
</tbody>
</table>
TABLE VIII (Continued)
MEANS, STANDARD DEVIATIONS, F AND t RATIOS FOR THE TWO EXTREME GROUPS OF SEMINARIANS ON ALL SCALES

<table>
<thead>
<tr>
<th>SCALES</th>
<th>MEANS</th>
<th>S. D.</th>
<th>F</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenia</td>
<td>B 55.48</td>
<td>9.37</td>
<td>1.44</td>
<td>.22</td>
</tr>
<tr>
<td></td>
<td>P 55.97</td>
<td>7.80</td>
<td>1.44</td>
<td>.22</td>
</tr>
<tr>
<td>Hypomania</td>
<td>B 55.38</td>
<td>9.69</td>
<td>1.02</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>P 55.33</td>
<td>9.59</td>
<td>1.02</td>
<td>.02</td>
</tr>
</tbody>
</table>

B = Best    P = Poorest
# = Significant beyond the .01 level
* = Significant beyond the .05 level
of the parish or diocesan priest. Bier, in his study, also found the seminarians to be most deviant in terms of their Mf scale scores - even beyond the deviance exhibited by his college comparison groups.

Although none of the other scales of the MMPI are significant at or beyond the five per cent level, it is worth noting that the Psychasthenia scale does approach significance at the ten per cent level. It is the only other scale which in any way approximates significance. Nor is this level of significance acceptable for the selection purposes of this study. But it is worthy of mention because of the light which it sheds upon the personality and adjustment of seminarians, since it is clearly indicative of a trend. This same inverse relationship between scores on the Pt scale and ratings of seminary adjustment was observed in the simple correlations between the MMPI variables and the rating scale for the total population. Here the observed relationship was \(-.14\). The finding tends to bear out the hypothesis that seminary life, when taken seriously, does increase temporary or situational anxiety. Cottle, discussing the interpretive significance of this scale, says:

An elevation on the Psychasthenia scale indicates the person who is a "Worry Wort." This minor deviation from normal may represent the person who is more orderly and requires more organization....A score above average on the Psychasthenia scale also reflects minor crises in the life of an individual...Anyone in a pressure situation will usually reflect this by a rise in the Pt score, frequently accompanied by a rise on the Depression score. 13

(Italics mine)

13 Ibid., Pp. 67-68.
Thus the MMPI findings seem to suggest a triad in terms of profile or pattern of D, Mf, and Pt with the peak on Mf for the "typical" successful seminarian. The vocational interests expressed in percentiles, based on the Kuder, are presented in Table IX.

The Group Rorschach Total Adjustment Score is the final variable to be considered in this discussion of the analysis of the extremes of the seminary adjustment continuum. The difference in mean scores between the two groups was found to be significant beyond the .01 level. In this study good adjustment is associated with a low Group Rorschach Adjustment Score. There is no question from the results of this analysis that the Group Rorschach Score successfully differentiates those seminarians at the extremes of the adjustment continuum. Since the Total Adjustment Score is derived from a tally of the incidence of the various pathological indicators on the Rorschach, it is safe to say that the well-adjusted seminarians showed significantly fewer of these indicators than did the poorly-adjusted group.

However, since little is learned from such a total score, beyond the conclusions already indicated above, it was decided to pursue the investigation of the relative contribution of the individual Rorschach variables by means of a further analysis of these two extreme adjustment groups. In all, sixteen scoring categories were chosen; fifteen of these are traditional Rorschach categories and require no comment. They were: W, D, S, F, R, CF, FC, M, FM, m, FK, KF, Fc, cf, and C'. The sixteenth variable has been styled "Dv" to represent deviant verbalizations. In this category an attempt was made to introduce a score which would represent morbid, bizarre thought content, judged in a qualitative sense, but which responses might not necessarily be considered
### TABLE IX

**THE VOCATIONAL INTERESTS OF THE TWO EXTREME ADJUSTMENT GROUPS OF SEMINARIANS BASED ON THE KUDEP PREFERENCE RECORD, AND EXPRESSED IN PERCENTILES**

<table>
<thead>
<tr>
<th>SCALES</th>
<th>PERCENTILES*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical</td>
<td>B 65 P 27</td>
</tr>
<tr>
<td>Computational</td>
<td>B 39 P 19</td>
</tr>
<tr>
<td>Scientific</td>
<td>B 51 P 34</td>
</tr>
<tr>
<td>Persuasive</td>
<td>B 68 P 34</td>
</tr>
<tr>
<td>Artistic</td>
<td>B 39 P 43</td>
</tr>
<tr>
<td>Literary</td>
<td>B 50 P 58</td>
</tr>
<tr>
<td>Musical</td>
<td>B 55 P 76</td>
</tr>
<tr>
<td>Soc. Service</td>
<td>B 84 P 86</td>
</tr>
<tr>
<td>Clerical</td>
<td>B 14 P 19</td>
</tr>
</tbody>
</table>

* Consult Table VII for levels of significance for F and t.*

B = Best adjusted group  
N = 29

P = Poorest in adjustment  
N = 33
F minus. As the results will show, this introduction was not productive of significant differences at either the .05 or the .01 Level.

The calculations employed here were identical with those of the previous analysis of the extreme groups. In all instances in which the F tests indicated a significant heterogeneity of variance, the Cochran-Cox formula for \( t \) was used. The results of this analysis are recorded in Table X.

In absolute numbers, the best adjusted portion of the population had approximately twice as many FC (Form-Color) responses as did the poorly adjusted portion. The results of the t analysis indicates that the mean scores of the two groups with respect to this particular variable are significantly different beyond the .01 level. No other of the Rorschach variables under investigation approached this level of significance. However, if one examines the raw data, as well as the F and t ratios, the existence of certain expected relationships in the way of trends is observed. For example, the best adjusted group has three times as many FK responses than does the poorly adjusted group. But the absolute numbers are relatively small, 40 to 13, and the resulting t is 1.19 which is not accepted as significant for the purposes of this study. And yet this finding does support the usual interpretation of the meaning of FK responses as wholesome indicators. This same phenomenon is observed in the case of the CF scores where the observed t is 1.40, below the level requisite for this study, but nonetheless tending to support the expectation that those who are poorly adjusted will give more of these CF responses than those who are well adjusted. Again, the poorly adjusted, in terms of absolute numbers, give more FM, m, CF, C' responses (in some instances almost twice as many) than do the best group. This is also
TABLE X

THE MEANS, STANDARD DEVIATIONS, F AND t RATIOS OF THE TWO EXTREMES OF THE SEMINARY POPULATION ON THE ADJUSTMENT CONTINUUM DERIVED FROM SOME OF THE MAJOR GROUP RORSCHACH SCORING CATEGORIES

<table>
<thead>
<tr>
<th>Category</th>
<th>Means</th>
<th>S.D.</th>
<th>F</th>
<th>t</th>
</tr>
</thead>
<tbody>
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<td>W</td>
<td>B 12.03</td>
<td>5.68</td>
<td>1.02</td>
<td>.08</td>
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<td>P 12.15</td>
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<td>B 25.03</td>
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<td>1.10</td>
<td>1.34</td>
<td>.80</td>
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<tr>
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<td>B 2.75</td>
<td>2.10</td>
<td>3.02**</td>
<td>3.29**</td>
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<tr>
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<td>1.81</td>
<td>1.06</td>
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<tr>
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<tr>
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<tr>
<td>Fc</td>
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<td>2.12**</td>
<td>.39</td>
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<tr>
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</tr>
<tr>
<td>C'</td>
<td>B .96</td>
<td>1.13</td>
<td>1.51</td>
<td>.76</td>
</tr>
<tr>
<td>P 1.21</td>
<td></td>
<td>1.39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B = Best adjusted portion of population.
P = Most poorly adjusted portion of population.
* = Significant at or beyond the .05 level of confidence.
** = Significant beyond the .01 level of confidence.
true of the author's category of Dv ("deviant verbalizations"). Perhaps this is nothing more than what was to be expected in the light of the fact that the total adjustment score is made up of a summation of pathological indicators, as was indicated above.

From a negative standpoint it is interesting to note that the two groups are not significantly different in terms of such variables as number of W and M responses. Since these variables are usually related in conventional Rorschach interpretation, to intellectual factors, this result is not surprising. It has already been established, using a measure of mental ability, that no significant difference in intelligence exists between these two populations. Nor is there any difference between the groups in total number of R.

Apart from the trends noted above which make their positive contribution to the total adjustment score, the factor which makes the largest single contribution toward differentiating the well adjusted from the poorly adjusted is the presence or absence of FC responses in the Group Rorschach protocol. When the interpretive significance, other factors being relatively equal, of good form-color responses is considered, this finding is not unexpected. The single Rorschach factor which helps most to differentiate good seminarian adjustment from poor adjustment is the ability to maintain reasonable control over affective-impulsive life. Of course, this finding is not specific to seminary adjustment, since it is reasonable to expect that the ability to maintain good emotional control would be found to be an essential component of good adjustment in almost any occupational group or category. Thus it is not so much the absolute presence or absence of deviant ideation and anxiety or
conflict which discriminates effectively between the two extreme adjustment groups (although there are suggestions of trends in the direction of fewer such indicators in the well adjusted group), but rather the ability to maintain emotional balance and control, a certain insightful evaluation of problems.

This portion of the study, then, seems to hold out hope for the potential usefulness of the Group Rorschach and the Mf scale of the MMPI as aids in the screening and selection of candidates for the secular priesthood. Somewhat less confidence may be placed in the value of the D scale. The value of the other variables in this study such as the Pt scale of the MMPI, the Social Service and Clerical categories of the Kuder, and several of the discrete Rorschach variables is more doubtful. Perhaps they represent areas for further investigation. It would also seem useful and warranted to check the test variables employed in the present study against other criteria such as a kind of pass-fail, or survival, criterion, or a follow-up study of adjustment after ordination. Unfortunately, neither of these avenues of approach are open to the writer at present.
CHAPTER V

SUMMARY AND CONCLUSIONS

This research was designed to investigate the usefulness of several well-known and widely used psychological tests as screening devices in the selection of candidates for the diocesan priesthood. The tests employed were: The Ohio State Psychological Examination, the Kuder Preference Record Form EB, the Minnesota Multiphasic Personality Inventory Group Form, and the Group Rorschach Technique. The criterion was the consensus ratings provided on a ten variable, five-point rating scale by seven prefect-raters yielding a single total adjustment score for each of the subjects. The tests were administered to 206 major seminarians over a period of three years.

The data were subjected to a multiple correlational analysis using the nine interest scales of the Kuder, the nine clinical scales of the MPPI, as well as a single total adjustment score based on the summed T scores of the nine scales, the Ohio State Total Score, and a Group Rorschach Total Score derived from the Munroe Inspection Technique. This resulted in a multiple coefficient of correlation of .38 with a standard error of estimate of 4.26. This r was found to be significant beyond the one per cent level. The highest single correlation of any of the variables taken separately with the criterion was a .26 between the Group Rorschach Score and the Rating Scale. The remainder of the correlations were of a very low nature, tending to be slightly inverse.
Because of the general negative character of these findings, an analysis of the extremes of the population was carried out. The population was divided into the top 29 and the bottom 33 cases on the basis of the Rating Scale Scores and distribution. F tests for heterogeneity of variance and t ratios to test the significance of the differences in the mean scores between these two groups were then carried out for each of the original variables in this study. The Group Rorschach score and the Mf scale of the MMPI proved to be significant beyond the one per cent level, and the D scale of the MMPI barely significant at the five per cent level.

A further analysis of 16 Rorschach variables was conducted, using F tests and t ratios, to determine which of the usual scoring categories, among the determinants, contributed most to this difference. It was found that among the various factors, the FC score was the only one to attain significance and that was beyond the one per cent level. In general there was a tendency for the best adjusted group to yield fewer pathological indicators.

From these results it may be concluded that the Mf scale of the MMPI and the Group Rorschach Total Adjustment score are able to discriminate significantly between the best adjusted and the most poorly adjusted portions of this seminary population as determined by the criterion. The D scale is less helpful, but still significant at the five per cent level of confidence.

The "typical," well adjusted seminarian in this study may be described as being superior in intelligence, strongly interested in people and ideas, tending toward more normal anxiety, but with insight and very good emotional control. He tends to have fewer pathological conflicts and basic immaturities in his personality than does his poorly adjusted classmate. He
also tends to be relatively freer of morbid preoccupations, strong depressive feelings, and crippling anxiety. In a word, he is able to organize, mobilize, and direct his intellectual, volitional, and affective powers toward the goals of social achievement and personal happiness with a minimum of strain and dissatisfaction. This interpretation is made, despite the presence of relatively elevated D and Pt scores on the MMPI for the "best adjusted" portion of the population, since the writer does not believe that the usual interpretation oriented along pathological lines is warranted. De facto, in the light of careful clinical observation, this group with higher D and Pt scores is not more maladjusted than the group with lower scores. This is further borne out by the fact that the better adjusted group, while obtaining higher D and Pt scores on the MMPI, is actually singularly low in these signs on the Group Rorschach. Thus the seemingly paradoxical findings wherein the better adjusted get "poorer" MMPI scores only points to the questionable propriety of using such a test with a very uniquely selected and specialized population. It may well be considered as an artifact of the test and the situation working together. It should be noted, of course, that while the D and Pt scores are somewhat higher for the better group, they are actually well within the normal limits of the test range itself, and certainly do not connote any per se pathological implications.

The value of this finding on the MMPI is that it points out very well that the results which one obtains using the various paper-pencil personality tests are definitely dependent upon many factors, including the manner in which one uses them, the specialized population under consideration, the original purpose and standardization of the test, etc. It further
emphasizes that such tests do not literally make judgments of themselves, but simply provide a catalog or enumeration of responses which must be interpreted or judged by a skilled clinician.

The findings of this study stress the need for extreme caution in the use of group psychological tests in seminary selection programs. While these tests may be employed with some value in a total battery, the results point unequivocally to the necessity for individual clinical judgment and evaluation if the job of screening and selection is to be performed properly.

However, further research is necessary in this particular area. The conclusions of this study are based upon the particular tests employed, the experimental design, and the criterion. Studies using other criteria are needed. Investigations involving the use of other tests and evaluative devices would increase the general fund of knowledge regarding the value of assessment in this specialized field.

Since the aim of sound selection procedures is to reduce the rate of attrition and to assist in providing the conditions for a greater measure of efficiency and happiness in seminary life, it would seem desirable to approach the problem of total assessment employing the methods and techniques of modern social psychology.

This would involve the study of seminary life as a total life situation. An attempt to evaluate the natural "dynamics" of seminary group interaction through the use of the recently devised sociometric techniques, the group norms peculiar to this situation, and their impact on the lives and thinking of the individuals within this total field, would greatly aid in our understanding of what adjustment in seminary life means. This would be the
necessary second term of the relationship, the *terminus ad quem* of the selection procedures.

The mention of "a uniquely selected" population above, brings up a point which deserves final emphasis, and that is the fact that the tests have been asked to do a job which is perhaps beyond their capability. The total results indicate quite clearly that the population is already a highly select and homogenous group. The ordinary intellectual, personality, and moral criteria for the selection of seminarians have been operative for several years. It is not surprising then, that under these circumstances, the tests had great difficulty in differentiating between those who were suitable and those who were unsuitable. In a very true sense of the word, all those who were tested were considered as suitable, within limits, or they would not have been permitted to remain.

The fact that any significant differences were observed at all in this population on the basis of the tests, is something of a triumph for psychological testing. But it also suggests that far greater efficiency and economy may be secured by employing a screening battery, plus individual clinical evaluation, in the earlier years of seminary and religious life. The last year of the "prep" seminary would seem to present an ideal time to carry out such an evaluation.
A. BOOKS AND MONOGRAPHS


Published Proceedings of the Seventh Annual Convocation of the Vocation Institute, University of Notre Dame Press, Notre Dame, Indiana, 1953.

Published Proceedings of the Eighth Annual Convocation of the Vocation Institute, University of Notre Dame Press, Notre Dame, Indiana, 1954.


**B. PERIODICALS**


C. UNPUBLISHED MATERIAL

RATING SCALE

NAME........................................CLASS..............................

1. External attitude of devotion:
Some boys are at once recognized as apparently devout and seem to be recollected in the presence of God; other boys have nothing of this in their outward bearing. Irrespective of whether you think this is a good sign or not, kindly give this boy a mark on the line below indicating where you would place him.

Few if any signs of devotion or recollection

Distinctly below average

Distinctly average

Marked External bearing of devotion & recollection

II. Promptness in attending spiritual exercises:
There are some boys who are habitually late for exercises; others are late fairly often; there are those who may be called average; others are above average; and a few there are who are never late. Kindly mark this boy on the line below.

Habitually late

Late fairly often

Average

Distinctly above average

Never late

III. Willingness to profit humbly by correction:
Some boys take correction very well and profit by it; others pout and make a display of temper when corrected. Between these two are those who may be termed distinctly below average, average, and distinctly above average. Try to place this boy on the following line.

Shows temper & sulks when corrected

Distinctly below average in responding to correction

Distinctly above average in responding to correction

Markedly willing to profit humbly by correction

IV. General popularity with the students:
Some boys are popular with all members of their class; others are popular with a large number; others may be termed average in their popularity; some are distinctly below average; and a few are genuinely
unpopular. Rate this boy on the following line.

<table>
<thead>
<tr>
<th>Generally unpopular</th>
<th>Distinctly below average</th>
<th>Average</th>
<th>Distinctly above average</th>
<th>Popular with all members of the class</th>
</tr>
</thead>
</table>

V. Faithful observance of seminary rule:

Does this boy show a general disregard for the rule of the seminary? Would you say he was distinctly below average, average, above average, or an exemplary observer of the rule? Kindly mark him on the following line.

<table>
<thead>
<tr>
<th>Has general disregard of rule</th>
<th>Distinctly below average</th>
<th>Average</th>
<th>Distinctly above average</th>
<th>Is exemplary observer of rule</th>
</tr>
</thead>
</table>

VI. Promise of good material for priesthood:

Some young men by their outstanding gifts or mind and heart impress their teachers and directors as giving great promise in the priesthood; their are others who are distinctly above the average in the promise they hold; others are average; some are distinctly below average but give indication that with training they will make the grade; and finally there are some who seem unsuited for the priesthood by temperament and a lack of appreciation for priestly standards. How would you mark this boy?

<table>
<thead>
<tr>
<th>Seems unsuited</th>
<th>Distinctly below average</th>
<th>Average</th>
<th>Distinctly above average</th>
<th>Outstanding gives rich promise</th>
</tr>
</thead>
</table>

VII. Personal appearance:

Some young men by their appearance immediately create a favorable impression on those they meet. They are never sloppy in dress or physical appearance; others are distinctly above average in their appearance; they are many who are average; some who are below average;
and finally those who are very sloppy and careless about their appearance. Kindly mark this boy.

<table>
<thead>
<tr>
<th>Is very careless and sloppy</th>
<th>Distinctly below average</th>
<th>Average</th>
<th>Distinctly above average</th>
<th>Is extremely neat and creates a favorable impression by appearance</th>
</tr>
</thead>
</table>

VII. Earnestness:
Some young men show little or no enthusiasm for the life or work in the seminary; others are interested in nothing — they show no enthusiasm for seminary life and work. There are others who are distinctly above average in their earnestness; there are those who may be said to be average, and finally those distinctly below average. Kindly mark this boy.

<table>
<thead>
<tr>
<th>Shows no enthusiasm for seminary life and work</th>
<th>Distinctly below average</th>
<th>Average</th>
<th>Distinctly above average</th>
<th>Manifests very great earnestness in his work</th>
</tr>
</thead>
</table>

IX. Manliness:
Manliness means here the possession of those qualities that make a young man appeal by reason of his lack of affectation, his virile and wholesome manner. It is a quality to be distinguished from those who are sissified and affected in manner and speech. Rate this boy on the following line.

<table>
<thead>
<tr>
<th>Is sissified and affected in manner and speech</th>
<th>Distinctly below average</th>
<th>Average</th>
<th>Distinctly above average</th>
<th>Is outstanding for his manly, wholesome and unaffected manner</th>
</tr>
</thead>
</table>

X. Fidelity to prescribed duties:
Some young men, by virtue of their marked fidelity, can be entrusted
with any task that is given them; others can not be depended upon at all; in between these two extremes there are those who are distinctly above average, the average, and those distinctly below average. Mark this boy on the following line.

<table>
<thead>
<tr>
<th>Very undependable</th>
<th>Distinctly below average</th>
<th>Average</th>
<th>Distinctly above average</th>
<th>Outstanding for his fidelity to any task assigned to him</th>
</tr>
</thead>
</table>

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APPROVAL SHEET

The dissertation submitted by Le Roy A. Wauck has been read and approved by five members of the Department of Psychology.

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the dissertation is now given final approval with reference to content, form, and mechanical accuracy.

The dissertation is therefore accepted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy.

October 8, 1956
Date

Signature of Adviser