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Testing Seminarians with MMPI and Kuder:
A Report of Ten Years of Testing

by
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A Thesis Submitted to the Faculty of the Graduate School
of Loyola University in Partial Fulfillment of
the Requirements for the Degree of
Master of Arts

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LIFE

Robert Howard Sweeney was born in the State of Washington, graduated from the University of Notre Dame in Indiana, made his theological studies in Washington, D.C., was ordained a Catholic priest in 1934, and after taking a degree in Canon Law and one in American law, taught Moral Theology and Canon Law in the theologate of the Congregation of Holy Cross until 1946.

After a period of administrative work at the University of Notre Dame and the University of Portland in Oregon, he was assigned as Spiritual Director of Moreau Seminary at Notre Dame, Indiana, and as Director of the Pastoral Training Year for newly-ordained priests of the Congregation of Holy Cross in 1959, and continues in that post, instructing in pastoral theology and pastoral psychology.

CONTENTS

Chapter		Page
I.	INTRODUCTION	4
II.	REVIEW OF RELATED LITERATURE	9
III.	THE MEASURING INSTRUMENTS AND PROCEDURE	48
IV.	DESCRIPTION OF RESULTS	52
V.	SUMMARY AND CONCLUSIONS	91
	REFERENCES	96

TABLES AND FIGURES

Table 1	Comparison of MMPI Scales for Entire Group (N = 461) with Other Similar Populations	53
Figure 1	Profile of Table 1	54
Table 2	Comparison of Successful Group and Drop-out Group, MMPI Scales: Mean Scores, Standard Deviations, <u>t</u> Test for Significance	58
	Comparison of Raw Scores	59
Figure 2	Profile of Table 2	61
Table 3	Comparison of Present Group with Rice's Group of Seminarians, with and without λ Correction of Scores	62
Table 4	Highest MMPI Scales of Successful and Unsuccessful Candidates	73
Table 5	Kuder Preference Record Scores for Successful and Drop-out Group in Rank order	89
Figure 3	Profile of Table 5	90

CHAPTER I

INTRODUCTION

From the year 1953 to the year 1963 the Minnesota Multiphasic Personality Inventory and the Kuder Preference Record have been administered to the candidates for admission to the novitiate of a religious congregation of men in the Midwest. The students who form the subjects of this study are the seminarian candidates, that is, the candidates for ultimate admission to the priesthood. The candidates for admission to the religious life as brothers, or non-clerics, are not included.

The tests have been administered while the seminarians are in the year of seminary studies that precedes their admission to noviceship. The group has averaged some fifty members each year. They are at the educational level of 12th grade or above. Approximately half of the subjects were at the first year college level of studies; a quarter of them were beyond this level, and a quarter of them were at the senior year of high school in a preparatory seminary.

This study is a comparison between the test profiles of a group of 126 successful candidates and a group of 335 candidates who dropped out of training at some point before ordination to the priesthood. The 126 candidates are designated as successful because they have passed through the novitiate training and have persevered to perpetual profession in the religious institute. This represents a span of at least four and a half years from the time of taking the

tests, including part of a year pre-novitiate, a year of noviceship, and the three years of temporary vows required before admission to perpetual profession. Admission to perpetual profession may be considered virtually equivalent to acceptance for priesthood, because the candidate cannot be approved for final vows unless he is judged an acceptable candidate for priesthood.

The main purpose of this study was to compare the MMPI and the Kuder profiles of definitely successful seminary candidates for the Religious priesthood, and the candidates who had dropped out of training.

A secondary purpose of the study was to ascertain a cutting-off point of mean scores of MMPI and Kuder which would distinguish successful candidates from unsuccessful.

A further purpose was to learn whether the standardized scores on the MMPI or the raw scores were more useful in distinguishing the persevering students from the drop-outs; and whether the scores were more effective with or without the addition of the K-correction used by the authors of the test.

A fifth objective was to make a comparison between the predictive capacity of the test scores and the predictive capacity of a faculty evaluation. A retrospective evaluation was made by ten staff members who had served as faculty in the two houses that provided most of the subjects; the purpose was to get at least a rough

study of whether the faculty rating could effectively distinguish the candidates who would drop out of training from those who would persevere to perpetual vows.

After the study was well along the author came to sense that the test-taking attitude of the subjects might have had a substantial influence on the test results. He devised a brief questionnaire and invited 10 priests and approximately 100 seminarians who were still in training to answer the questions anonymously. All 10 of the priests and 55 of the seminarians responded and gave their judgement on whether their test-taking attitude had been defensive and whether it had substantially influenced the resulting profile.

THE NATURE OF THE RELIGIOUS INSTITUTE OF PRIESTS

It will be useful to indicate some distinctive features about the seminary population here under study. The Institute is a clerical Institute whose chief work is teaching at the college level, conducting foreign missions especially by maintaining school systems at the secondary level, serving as chaplains in secondary schools in the United States and South America, and serving as parish priests.

Approximately half of the candidates are preparing for the work of priest-teacher at the college level in the United States or in other countries; the other half will be assigned to parishes, chaplaincies, foreign mission catechetical work, or work with underprivileged people in the United States or in other countries. This

note may be of some importance, because it gives a distinctive cultural marking to the candidates of the Institute.

When the testing program was initiated in 1953 it was hoped that seriously disturbed candidates might be detected and referred for psychiatric help, that counseling might be provided for candidates showing emotional disturbance of less intense nature. One distinctive objective of the testing program was to investigate whether the tests would accurately predict which candidates would persevere to priesthood and which would drop out of training.

No analysis of the results of the testing program has ever been made up to the present study. After ten years there is now an opportunity for perspective and some reliability in evaluation of the results.

This study is partially aimed at adding to the growing fund of information on the profiles of emotional adjustment and occupational preferences which are provided by the MMPI and the Kuder Preference Record. It will be of specific interest to compare the profiles of those who dropped out of training with those who persevered definitely to perpetual profession in the religious institute.

The publication of several recent studies indicating that the validating scales of the MMPI will not effectively detect faking good on the test, has emphasized again the need of caution in considering the predictive capacities of the MMPI as a screening device

to distinguish candidates who will succeed and those who will drop out in the course of training.

With these factors in mind, the author proposes to test the following hypotheses:

HYPOTHESES:

1. It is hypothesized that a comparison of mean MMPI scores will establish significant differences between successful seminary candidates and candidates who failed to persevere; the differences will be found particularly in area 5 (Mf), 7 (Pt), and 8 (Sc).
2. a) It is hypothesized that at some level of the summed T-score means of all the MMPI clinical areas, a cutting point will be found that effectively distinguishes between successful seminary candidates and unsuccessful candidates.

b) It is hypothesized that an effective distinction can be found, based on the presence of two or three clinical area T-scores of 70 or more on the drop-out profiles; also by a combination of mean score level plus presence of elevated clinical areas.
3. It is hypothesized that a faculty rating-scale on a five point basis of likelihood of perseverance in training will correlate closely with the results of the predictions of the MMPI scores.
4. It is hypothesized that no significant differences will be found between the mean Kuder scores of the successful group and the unsuccessful group of candidates.

CHAPTER II

REVIEW OF RELATED LITERATURE

A brief historical survey of the studies that have been done on screening seminarians would begin with the landmark report by Father T. V. Moore (1936) on insanity in priests and religious. He was impressed with the high incidence of mental disturbances among ecclesiastical persons; he hypothesized that the situation arose from the attraction for the secure pattern of living felt by those who were prone to mental breakdown; he devised a rating scale to be used by seminary and Religious authorities in screening candidates.

Under the influence of Moore a large number of studies were written at Catholic University of America.

In 1942 McCarthy presented a study on personality traits of seminarians. He compared a battery of 13 tests with the evaluation made by faculty ratings, and found them lacking in close correlation. This was not too surprising, since the tests had been standardized with lay persons whose interests and attitudes were in many ways distinct from those of seminarians. The study helped to point up the necessity of skilled interpretation of personality inventories for a highly specialized population like candidates for priesthood and Religious life. McCarthy claimed to find two factors in the seminarian personality; one was a schizoid factor, the other was a general fitness for continuance in seminary life as indicated by the ten traits on the faculty rating scale. He concluded that

generally the seminarian showed greater emotional lability than the average lay high school student, a higher degree of self-consciousness, less complete total adjustment on the Bell inventory, and a greater degree of submissiveness.

This line of research was continued by Burke (1947) in a study of personality traits of successful minor seminarians. He was intent on finding a battery of tests that could be used for screening out unfit applicants. His study of various tests then in use concluded that the typical seminarian personality is more than average submissive, dependent, introspective, and self-conscious. A comparison between seminarians and college students who were candidates for various professions, such as law, dentistry, medicine, showed a greater degree of emotional disturbance.

William Bier, S.J. reported (1948) a comparative study of a seminary group and four other groups on the MMPI. This doctoral dissertation was abbreviated for inclusion in the Basic Readings on MMPI (1956). Bier was convinced that many of the questions of the MMPI were not appropriate for testing seminarians. He compared the MMPI scores of 171 seminary students, 208 medical students, 121 dental students, 55 law students and 369 college students. Noting the function of age to increase scores, as had been observed by Hathaway (1942), a correction of 0.593 for age differences was used. The means for seminarian population were higher than those of the general population. Bier observed that statistically the MMPI does not

provide for expected deviations below the T-score of 50, which marks normalcy; only on five of the scales it is possible to score below 30, or two S.D. below normal. Seminararians nevertheless score notably higher than the general population upon whom the MMPI was standardized; they are the most elevated of the five elevated college populations. Bier uses the average of all summed T-scores as the level of adjustment, believes that the higher it is the poorer the adjustment in general. Poorly adjusted and well adjusted groups appear among the seminararians in quite the same way as they appear in the other populations. A comparison of the top 27% and the lowest 27% shows that there are highly significant differences between the two groups on every scale.

The *Mf* scale was the one on which the seminary group manifested the most divergence from the general test norms. Terman and Miles in 1936 had reported elevated scores for seminary students. (1936)

Bier made an exhaustive item analysis. Seventy-two items were responsible for inter-group differences between seminararians and other groups. Eleven items constitute the within-group differences distinguishing seminararians from others. But ten questions specifically set off well adjusted from the poorly adjusted seminararians; they are questions 92, 217, 238, 86, 170, 307, 236, 160, 138, 32.

Of the ten questions that most differentiate among all the groups, three are from the questions specifically distinguishing seminararians. This indicates that a large number of questions do not

apply to the seminary group, or apply in a different way than to the other groups. Bier gives some examples of this, such as whether the subject likes " to flirt" or " to join a number of clubs or lodges". Certain questions about basic religious belief would be answered the same by all seminarians and so would be non-discriminatory of good or bad adjustment. Also some questions about personal sexual practices would have a very different implication for seminarian and for run-of-mine college student or man on the corner.

But these questions can cause resentment or amusement, and bring the whole test into disfavor and scorn. Consequently, Bier proposes a modified, abbreviated form of the test for seminarians, and expects that with the passage of time the effective validations and emendations may be worked out.

Comment: The attitude of the population studied in the present study would tend to confirm Bier's conclusion that the impertinent items bring on a resentment toward the full MMPI, and that this test-taking attitude can hardly improve the effectiveness of the test.

It strikes this investigator, however, that Bier is assuming throughout his entire study that the scores of the seminarians are derived from the same kind of spontaneous responses that might be expected from volunteer college students and graduate students. But the conditions would seem to be palpably different. The lay-student subjects of his report volunteered to express their feelings;

nothing was hanging on the results. But seminarians are being subjected to an evaluative test, that is, a test which will determine whether they are fit to go on as candidates for the priesthood; their whole life hangs on the result. The psychological impact of the testing conditions could be expected to influence the responses of the seminarians in a defensive direction.

It was very sagely observed by Hathaway, the author of the test, that when people take tests like the MMPI they instinctively role-play the part they wish to portray. This would seem to indicate that so long as the MMPI is given in seminaries as part of a non-voluntary screening program, it is liable to "faking good" to a greater or lesser degree.

In what has become a classic though unpublished study of seminary testing, LeRoy Wauck in 1957 reported an investigation into the use of psychological tests as an aid in the selection of candidates for the diocesan priesthood. A battery of tests was administered to 207 major seminary candidates for diocesan priesthood; the tests were the MMPI, Ohio State Psychological Examination, Group Rorschach, Kuder Preference Record; the test results were compared with a faculty rating, using a five-point ten-trait scale specially devised by McCarthy (1942). The multiple correlation between the test battery and the faculty rating was .38, with a standard error of estimate of 4.26. Wauck found the correlation to be significant beyond the .01 level of confidence, in spite of the fact that most

of the correlations between faculty rating and individual test measures were nearly zero. A single adjustment score for the Rorschach was derived, using Harrower's Inspection Method; this correlated at .24 with the faculty rating, and was the closest single correlation.

Wauck found that the MMPI scores gave little prediction of what faculty rating would be; this would suggest that the MMPI profile is a self-portrait influenced by what may be a very subjective self-image, whereas the faculty rating reflects an external judgment. Wauck points out that his subjects were already in the major seminary and consequently were a highly selected group; the majority of those who discontinue would have done so before entering the major seminary. Moreover, the seminary studies of the minor course would have served as an exacting intellectual screening process, eliminating a whole segment of candidates. These factors may serve to reduce the effectiveness of the MMPI.

Wauck made a comparison of the MMPI scores of the 29 subjects who were judged best adjusted by the faculty rating and the 31 who were judged to be worst adjusted. Two scales produced significant differences, scale 2 and 5 (D, Mf); in both areas the "best adjusted" group by faculty evaluation, produced more elevated than the "worst adjusted" group; the significance reached the .05 level of confidence.

In fact the best-adjusted group produced more elevated scores in six of the scales, and in the four remaining areas there is less

than a one point difference between the two groups. This unexpected result understandably puzzles Wauck. The Rorschach did not produce evidence that the better-rated group were troubled by depressive or obsessive feelings, as would be inferred from the area scales. Wauck concludes that the results demonstrate that to use the MMPI as a predictive instrument with a population already so highly selected, is to place it under a severe disadvantage that may exceed its constitutional capacities.

Comment: The caution suggested by Wauck would constitute a very reasonable guideline to avoid excessive claims for a screening program, and as such would be likely to find the approval of the originators of the MMPI. This caution is suggested by the results obtained from the present population of 461 seminarians; here the average MMPI scores of those who discontinue training are higher in all ten scales, but this does not provide an automatic method of using the test as a predictive instrument of success or failure.

In fact, it could be said in an over-all view of the testing results and after reflection on the personality of seminarians who leave and those who remain, that the MMPI can still be a very effective instrument for revealing level of adjustment, even if it is not designated to predict perseverance or discontinuance. From another angle, the fact that a seminarian is ordained to the priesthood is no infallible guarantee that he is a well-adjusted person; it only discloses that the faculty members who voted on his acceptance for

ordination were not convinced that he was disturbed enough to be excluded. There are uncounted variables that enter into the decision on the part of a voting faculty member.

A report was published by Murray (1957) on the effect of seminary training on personality and interest test scores. The investigator employed the 1955 version of the modified Bier MMPI, tested 100 college men, 100 minor seminarians, and 100 priests ordained from two to ten years; the last three categories of subjects were evenly divided between diocesan candidates and Religious. They were also given the Guilford-Zimmerman Temperament Scale, on which they appeared better adjusted than on MMPI; the reason for this may be that the GZTS was standardized on a college population. They were given the Strong Vocational Interest Blank, which showed great homogeneity between the groups; this was also true, however, of the MMPI patterns.

The resulting MMPI scores showed that the minor seminarians were more elevated than collegians on eight scales, at a significant level in four of the areas. The major seminarians scored higher than both minor seminarians and collegians except on scale 4 and 9 (Pd, Ma); there was a significant difference on eight scales, but on scale 9 it was the collegians who were significantly higher. The priests scored higher than collegians on seven scales, two of them significantly; the college students were higher on two scales, with area 9 being significantly higher.

From these results Murray concludes that the seminary atmosphere and pressure tends to elevate the scores; priestly ordination tends to relieve the constrictive atmosphere and lower the scores. In addition, typical personality characteristics of those attracted to the priesthood constituted a factor; and finally, the nature of the training itself tended to elevate the scores.

The difference between the experimental group and the general standardizing population was ascribed to three factors, namely, college education, unmarried state of life, and superior socio-economic status. Since studies consistently report college students' scores higher than the normative mean on most scales, T-55 could be regarded as a normal level for the college-educated subjects.

Mother Elaine Sandra in a study contemporaneous with Murray's, (1957) concluded that introversive and perfectionistic traits of Religious Sisters, and to a lesser degree the pressures of candidacy and the atmosphere of convent training tend to elevate scores; she drew this conclusion in spite of the fact that on five scales novices scored higher than junior professed, who had received more years of training. Murray is inclined to think that the same factors are at work elevating the scores of seminarians. But since the amount of seminary training received by the minor seminarians is very limited, this element must be relegated to secondary importance.

The significant difference between major and minor seminarians are attributed by Murray to the additional seminary training and the

pressure of seminary life.

Comment: The conclusions would seem quite tentative, especially in view of the fact that the major seminarians are definitely higher than minor seminarians only on the first three scales, are definitely lower on scales 8 and 9, and are virtually the same -- with less than a half-point difference-- on the other five scales. Murray suggests that the test results show introversion as a strong tendency in the major seminarians, and infers that this arises from the seclusion and enforced quiet of the seminary regime -- not an easy inference to work out, in the face of the fact that the area 8 (Sc) score is higher in minor seminarians than in major seminarians, and is not significantly lower in the priests than in either minor or major seminarians.

An MMPI study of religious seminarians was reported by Rice (1958) questioning whether the heterogeneous group of seminarians whose records led Bier to conclude that a modified form of MMPI is needed for seminarians, produced an atypical pattern. This would indicate whether Bier's modified test could reliably be applied to other seminary populations. Rice tested the hypothesis that there would be no significant difference between Bier's subjects and his subjects, who were 73 volunteer members of an order of priests, 37 of whom had completed their teaching experience as scholastics, and 36 of whom had not; average ages were 31.9 and 24.6 for the two groups. He also tested the hypothesis that there were no significant differences within his group on MMPI results, and that his group did

not differ significantly from the standardizing group of normal males on the MMPI.

The result showed that there were no significant differences between the two groups. Rice undertook a study of the function of the K-correction; with this correction his group shows T-scores of 60 or over in area 3, 4, 5, 7 and 8, but without the K-correction there is a mean over 60 only in area 3 and 5, neither of which is modified by K. The K-corrected scores are at a T-score of 63 in scales 7 and 8; this might be interpreted to indicate a compulsive and schizoid group, and the results would be dangerous and disturbing. Rice argues that since the testing was anonymous there was no reason to fake good or to be highly defensive; the K-correction runs the scores of this group up higher than the highest group tested by Hathaway to normalize the test. Rice concludes that K distorts the records of the seminary population.

Seven of the 73 subjects of Rice's study had two or more T-scores of 70 or over. Rice infers that the Bier modification of the MMPI changes the profile that would be produced by the original MMPI form. A comparison of his subjects with the normalizing males on the basis of raw scores without the K correction discloses a significant difference in seven scales (eight scales, with a one-tail test). This leads Rice to conclude that the standard scoring of the MMPI is not applicable to the seminary group.

Rice compares his seminary group of 73 subjects with Bier's 171 seminarians on the basis of T-scores without the K-correction; in scale 3, 4, 5, and 6 (Hy, Pd, Mf, Pa) there is a significant difference, Rice's subjects being higher in every instance; in fact, they score higher in seven scales, lower in scale 1 and 9 only. Rice infers that Bier's "representative sample" may not be so representative.

He concludes that if the MMPI is to be used as a screening device, each Religious institute or seminary must set up its own norms, since there appears to be no identifiable "well-adjusted" seminarian profile" for the MMPI.

Comment: This thought-provoking study includes a built-in source of trouble, namely, the unusually high scores produced by the 73 subjects; the group average on all scales is a T-score of 60.0, which in practically all of the seminarian groups so far reported would signalize the profile of a considerably disturbed candidate. Yet Rice's candidates can be characterized as definitely successful, some being priests and some being in the last years of their training. The average age of this group is higher than the age of any other group of seminarians who form the object of a study, so far as this writer has found, and it is well known that age elevates MMPI scores. But since the testing had none of the conditions of a screening program that the candidates might ordinarily find threatening, it is not unreasonable to wonder whether the

defense-free attitude of the subjects might not have presented a very spontaneous and unflattering image of the self. This would produce a profile quite in contrast with the self-image projected by the 461 subjects of this present study; they were definitely defensive in their responses, as they tend to acknowledge. The latter might very well be a more typical attitude in seminarians.

A report on an MMPI scale for seminary candidates was made by Barry (1960) on the basis of a 10 year study following the Bier item analysis. This report evaluates the 81 items of MMPI which serve to distinguish the well-adjusted from the poorly-adjusted seminarian. The items which give the greatest percentage difference are lumped together as a "Religious Scale".

Comment: To this investigator it seems clear that Bier is right in holding that the full MMPI contains questions which seminarians regard as impertinent and which can cause a resentful test-taking attitude; this would suggest the conclusion that the test would be improved by modification for the clientele. The difficulty with Bier's proposed modification is that it does not seem to have proved substantially more effective as a screening instrument, it is still subject to the role-playing that can be expected to a certain degree in any screening program administered to candidates for priesthood. There is also a practical drawback in that it has not been adopted by most Religious Institutes and seminaries, who prefer the full MMPI in the hope eventually of establishing a distinctive seminarian

profile that can be compared with the profile of well-adjusted college students and other normative lay-folk.

Gorman in 1961 reported on adjustment and interests of fourth year minor seminarians studying for the diocesan priesthood. The MMPI, the Kuder, and the Mooney were administered to 188 minor seminarians who were seniors in high school; results of these tests were compared with a faculty rating by a two-man seminary team. Gorman's study was intended to be descriptive rather than predictive, with a view to establishing a screening program; it investigated the detection of poorer adjustment in the candidates. Gorman established a cutting point at a mean T-score of 58.8 as average of all nine clinical areas; this marked the level beneath which scores of T-70 effectively disappeared; there were a few false positives. Then a "high" group of 38 students were compared with a "normal" group composed of the remaining 150 students; there were 12 students with scores over 70 in the lower group, but they were judged false positives. Three of the "high" group were candidates who had a mean score over the cutting point of 58.8, but no scale over 70.

A comparison of the "high" and "normal" groups was also made on the Kuder scales. Then a comparison was made on a five-point faculty rating scale.

The results of the tests led Gorman to conclude that the seminary group showed better adjustment on MMPI than the college students reported by Goodstein. (1956) The faculty rating approved of

82% of all candidates; only 9% of the "high" group were rated less than average; from this Gorman infers that high scorers on the MMPI are not necessarily badly adjusted for seminary life, but may need counseling help with their emotional problems. The "high" group were higher on every MMPI scale, with a peak in scale 4 (D) and a leveling off in scale 5 (Mf) as contrasted with the "normal" population.

The Kuder profile of the "high" group followed the pattern of the "normal" group, without significant differences.

Comment: An inspection of the faculty ratings shows that seven out of 150 "normal" candidates were judged poor risks, or 4.6%, and three out of 38 of the "high" group were judged poor risks, or 7.9%. These figures are perhaps too small to use for sound generalizations, but it is noteworthy that 92% of the "high" candidates should have been regarded by the faculty team as at least a fair risk to persevere. Gorman's caution that the "high" scores on the MMPI must not be identified with "poorly adjusted for seminary life" is well taken.

A comparison of the 4th year students with the 5th year students who were the subjects of McDonagh's companion study (1961) disclosed the surprising fact that there was a significant difference between the two groups on five scales, 1, 2, 3, 5, and 7 (Ha, D, Hy, Pa and Pt); the configurational pattern was alike for the two groups. Gorman explains this as resulting in part from difference of age, 17.7 and 18.75 years respectively, and in part from greater realization of vocational obligations. Faculty had given unqualified appro-

val for advancement of 82% of the younger group, 87% of the older.

In a companion study of Gorman's, a report by McDonagh (1961) on a battery of tests administered to 136 diocesan seminarians at the first year college level compares the results of MMPI, Kuder, Mooney Problem Check List with a faculty rating on a five point basis. This was a descriptive study, not an attempt to diagnose successful and unsuccessful profiles, or to interpret the profiles in terms of perseverance. McDonagh tested the hypothesis that the profiles would compare favorably with the results of faculty ratings; a second hypothesis was that the two groups would be differentiated, one group well adjusted and the other group less well adjusted; a third hypothesis was that there would be no significant difference between these 5th year seminarians and the 4th year seminarians who were the subjects of the companion study of Gorman (1961).

An analysis of the results showed MMPI mean scores higher than those of the general population, which follows the universal pattern. (Cf. Bier, 1960, p.586) The highest scale was area 7 (Pt), with a mean for the group of 58.4; next was area 8 (Sc) with a mean of 58.0; the range was from 58.4 to 51.1.

McDonagh distinguished a "high" group by using a cutting point of 57.3 in mean summed scores; this was the first point where there were more than two students who had no scale above 70. This cut off a segment of 43 high scores, whose mean MMPI scales ran from

68.3 in area 7 (Pt) to 55.1 in area 9 (Ma); this group was contrasted with the remaining "normal" group of 92 subjects, whose mean scores ran from a high in area 5 (mf) at 55.6 to a low in area 10 (Si) at 48.7. There was a significant difference between the two groups on every scale.

A comparison of "high" group with the entire population shows significant differences in five areas of the MMPI. On the Kuder scales, however, there was no significant difference between "high" group and entire group; the patterns were similar in configuration. The high group were higher than entire group on every MMPI scale.

The faculty rating, given by the rector and the dean of the faculty, evaluated 96% of the normal group of 92 as average risk or better; it also rated 96% of the "high" group as average risk or better. It did not discriminate significantly between "high" group and "normal" group. McDonagh calls it a blunt instrument.

Comment: It is difficult to compare these results with the results in the present population of 461 seminarians, since the purpose of McDonagh's report was to set apart high scorers on MMPI from lower scorers; this was done very neatly with an effective cutting point of mean T-score 57.3. No such cutting point could be found effective in the 10 year study of the present population; 50% of the 335 drop-out candidates had no T-score over 70. In general the mean scores of the 461 subjects of this study were higher than those of McDonagh's diocesan seminarians; the explana-

tion of this may be found partly in their higher average age, 19.7 as compared to 18.75, and partly in their orientation as prospective teachers, in contrast to the pastoral aims of the diocesan candidates.

As part of the Loyola University research on Screening Candidates for Priesthood and Religious Life, Petreolus Hispanicus (1962) published a study on selecting seminarians. Fifty diocesan seminarians took a battery of tests, including the MMPI. The purpose of the testing program was to attempt to ascertain traits that make a seminarian acceptable as a candidate for priesthood, to compare a faculty rating with the results of an intelligence test and the MMPI, and to compare the mean scores of successful with those of unsuccessful candidates. After the tests were given ten of the fifty seminarians dropped out of the seminary; this group constitute the unsuccessful group, the remaining students are the successful group.

Three faculty members made a rating of the 40 persevering candidates on a five point scale, ranging from very poor risk to very good risk to persevere to priestly ordination.

Seven criteria were signalized as objects of investigation: i) mental ability, indicated by the intelligence test and by the natural screening process of seminary studies; ii) emotional controls, sought in the area 4, 6 and 7 scales (Pd, Pa, and Pt) on MMPI; iii) doubts, anxieties and guilt, as revealed by scales 1, 2,

3 and 7 (Hs, D, Hy, Pt); iv) relation to persons in authority, as indicated by scale 4 (Pd); v) self-regarding attitudes, as shown by scales 8 and 9 (Sc, Ma), in addition to the scale 1 and 3 (Hs, Hy) indications of psychosomatic preoccupations; vi) the self and the group, social adjustment as shown by scale 10 (Si); vii) adjustment to sex: this might be suggested by the area 5 (Mf) scale, but the author in effect repudiates the scale as an instrument to demonstrate sexual orientation, and indicates his belief that investigators no longer rely on it as a masculine-feminine trait indicator, since it has been consistently shown to possess a heavy cultural-artistic factor.

The investigation showed an acceptable agreement among the three judges, with correlations of .69, .72, and .84 among them in their ratings. The judges made the intelligence of the subject a partial factor in predicting success. The faculty ratings were compared with the results of the MMPI in the "clinical" areas. The author assumes that a T-score of 50 represents normal adjustment, a T-score above 50 represents emotional disturbance which becomes abnormal when the score reaches T-70, and then indicates need of psychological help.

The subjects were broken down into three groups on each scale: one-sixth with the least control, one-sixth with the most control, and the remaining two-thirds considered average in adjustment. On the basis of the five point rating scale, the faculty agreed with

the MMPI scores in scale 4 and 6 (Pd, Pa), but disagreed on scale 7 (Pt) as to the average and poorly adjusted segments; agreed on scale 1 (hs) but only partially agreed on scale 2 and 3 (D, Hy). Faculty rating did not conform to the distinction based on average and elevated scores in scale 8, 9, 10 (Sc, Ma, Si). It is interesting that the faculty rating placed the low-scoring group in area 5 (Mf) in its poorest segment, and up-graded those with most elevated scale 5 scores. This might indicate that scale 5 is primarily an artistic culture measurement.

A comparison of the 10 seminarians who dropped out and the 40 who remained for a period of one to six years shows that the drop-outs have a significantly higher score in three scales, 7, 4 and 8 (Pt, Pd, Sc) at the .03, .001, and .05 level of confidence respectively. The author states "the existence of real personality differences between well-adjusted or suitable candidates and poorly adjusted or non-persevering seminarians is evidenced by comparing the group MMPI profiles for the two groups."

Petreolus concludes that if there is real value in MMPI as an evaluating instrument, it consists in (1) confirming the faculty rating in the area of worry, anxiety, and concern over health; and (2) disagreeing with faculty rating on emotional withdrawal and cyclic moodiness, but effectively distinguishing successful from unsuccessful seminarians; the obvious inference here is that the MMPI discloses deep emotional problems which faculty raters either

do not observe or do not feel called upon to judge as a bar to success in seminary training. He wisely points out that the state of mind at the time of taking the test may have substantial influence on the test results. He concludes that he can only tentatively judge that the MMPI is effective to distinguish persevering from non-persevering candidates, since his population is quite small.

Comment: the results found by Petreolus form a rather interesting contrast with the empirical analysis of successes and failures in the population under study in this present report. This study found that between the 126 successful candidates and the 335 drop-out candidates there were significant differences in three areas of the MMPI on the raw scores; this was reduced to two areas of significant difference on the standardized T-scores with K correction; but it is extremely difficult to discern a practical criterion which would provide a usable method of using the MMPI profiles as predictive of success or non-perseverance at the time when the tests are taken, since 50% of those who drop out do not show any abnormally elevated scores on the MMPI.

It seems unfortunate that in the Petreolus study the term "poorly adjusted" is identified with "non-persevering", because it seems clear that there are many reasons why boys discontinue studies for the priesthood, including family finances, difficulty in studies, and the wholesome wish to get married and have a normal family life. Although half of our drop-outs do not show emotional

disturbance on the MMPI, this is not to say that Petreolus may not have been justified in his statement with reference to his 10 seminarians who dropped out; that is a specific and very small population.

It must be remembered that Petreolus' study compared 10 drop-outs with a group of 40 who remained; some of the "successful" candidates had persevered through only one year of seminary training. Without doubt some of the 40 will drop out. The analysis of the 461 candidates over a 10-year period, presented in this report, would indicate the need of considerable caution about identifying "normal" MMPI adjustment with success in seminary candidacy. If 15 of the 40 seminarians reported by Petreolus would drop out between 1962 and ordination date, the "significant differences" will be considerably levelled. When the number of subjects under study will have been increased from 50 to 500, it may well be found that the acid test of actual ordination proves that many well-adjusted boys are "non-persevering".

Weisgerber has reported a five-year survey (1962) of a psychological screening program of seminarians in a large clerical order. The screening battery included intelligence test, achievement test, and the 1949 Bier revision of the MMPI. The study covered the period 1950 to 1955; subjects were seminarians who entered the novitiate during that period. A psychologist studied the test results, made evaluations, but candidates were not actually screened out of the seminary.

The entire group numbered 211, of whom 70 dropped out and 141 were persevering at the time of writing; consequently, the actuarial expectancy of perseverance is two-thirds of the candidates. The psychologist rated candidates as satisfactory, doubtful, or unsatisfactory; he proved to be 70.8% correct on those he judged satisfactory, but only 45.2% correct on those judged doubtful or unsatisfactory. For the total group his number of correct judgments is no greater than actuarial expectancy. Of course his evaluation identified 45% of the bad risks, whereas actuarial expectancy identifies nobody.

A comparison of mean scores in the MMPI profiles shows that there is no significant difference in any scale between persevering candidates and drop-outs, in fact there is no scale with as much as a one point difference in the two means.

Areas 4, 5, 8 and 9 (Pd, Mf, Sc and Ma) produced enough high scores to give reliable percentages; the pattern ran true to actuarial expectancy, about two-thirds of the candidates persevering and one-third discontinuing.

None of the profile types are very closely related to perseverance, and there is no marked difference between the two groups. Scale 5 (Mf) is highest in 50% of the profiles; the classical and college preparatory training would be influential here, because of the many items in the scale reflecting cultural and artistic appreciation.

Scale 4 (Pd) is next in frequency; it is highest in 20% of the records. This area probably reflects a certain amount of independence; Weisgerber is somewhat surprised at the level of this scale 4 score. But it is the feeling of the present investigator that the score can reflect not only unconventionally or independence of traditional norms, but also freshness of outlook and spirit of initiative, which can be quite desirable traits in a seminarian.

A grouping of highest score patterns discloses that there is a remarkable absence of clustering. The 5-4 pattern appears in 32 records (Mf, Pd); and, excluding the ubiquitous area 5 (Mf), the 4-8 pattern (Pd, Sc) appears in 28 cases; in both patterns the over-all outcome remains undisturbed: approximately one-third of the candidates drop, two-thirds remain.

Weisgerber suggests that further study could be done on some of the patterns.

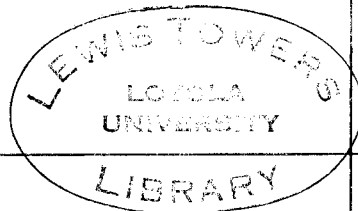
Comment: The present study will fill in some of the areas of suggested research. In the 461 subjects of the present study, there was no combination of two highest areas that produced a distinguishing criterion of any impressive degree of usefulness. The greatest difference was only 8% more frequent among the discontinuing seminar-ians than among the persevering candidates.

Weisgerber lists the most promising areas for research: high scores in area 5-9 and 9-5. The 5-9 (Mf, Ma) pattern appeared among

the 126 successful candidates in the present report a total of five times, and among the 335 drop-out subjects only 11 times. Scale 5 (Mf) was the highest score for the drop-out group in 105 cases, or 31%, but the second highest score was scattered among the ten "clinical" areas with the following distributions: 6, 7, 16, 23, 12, 13, 9, 11, 10 for 5-1, 5-2, 5-3, 5-4, 5-6, 5-7, 5-8, 5-9, 5-10. If scale 5 is excluded as high score area, the 4-8 (Pd, Sc) combination appeared 10 times among the drop-outs and four times in the successful group. This grouping is too meagre for reliable comparisons.

The 9-5 pattern appears among the 126 successful candidates of this report seven times, among the 335 drop-outs a total of 10 times. These clusterings are too small to permit any reliable generalizations -- except that the general absence of clustered scores prevents reliable generalizations.

Among Weisgerber's subjects, where scales 9 and 5 are the two highest scales, about 40% persevere; among the 461 subjects of this study, about 35% dropped out, 65% persevered. It is perhaps worth noting that Weisgerber's subjects did not include those who were tested but dropped out of the seminary before entering the novitiate; he surmises that their inclusion would have improved the effectiveness of the screening tests. The inclusion of these pre-novitiate drop-outs did not strengthen the predictive capacity of the test in the population of this present study.



Weisgerber concludes that the MMPI scales of those who dropped out differed hardly at all from those who persevered. He adds that a conservative use of profile analysis is helpful in identifying the poor risks and those who will need special attention. The results of the present study would commend that position as a sensible re-statement of what the MMPI was designed to produce, although it is true that the use of raw scores with our population disclosed significant differences in three scales between successful candidates and drop-out candidates.

THE EFFECT OF ROLE-PLAYING ON THE MMPI SCORES

There have been many studies concerning the effect of role-playing on the results of MMPI. A few of these will be noted here, because of their pertinence to the results of this study.

A report on "Willful Falsification on the MMPI" was published by J.E. Exner and others in 1963; the purpose was to use various scales of the MMPI to detect malingering, faking good, and honest profiles. The authors state that it is generally agreed that the MMPI can be faked; its use as a screening device depends on the honesty of the subject and the detectability of faking. Two groups of college students were tested; one group role-played a job applicant, the others role-played a person trying to evade military service; then both groups responded spontaneously to the MMPI. The results showed that 24 out of 25 subjects who faked bad could be detected by adding a cut-off score of 12 to the F-K score; on the F

scale all fakers scored 12 or more, all honest records were under 12.

The faked good records showed significant differences on the F and K scales, as well as in the L, F - K, and F + K scores; but the overlap in range of scores made these scales practically useless as detectors. Linear combinations could detect no more than 65% of the faked-good records.

The authors conclude that the MMPI can be faked normal and this cannot be detected; the K scale alone will not detect faking good, nor will the L + K score. They conclude that the use of MMPI as a screening device seems seriously limited by the fact that willful manipulation of the records is easily accomplished; when it is faked for socially desirable profiles, there is no way of detecting this with confidence.

A study of "Strategic, Method, and Stylistic Variance in the MMPI" has been published by Wiggins (1962); the influence of social desirability and attitude of acquiescence is analyzed. The MMPI was administered to 100 college students; their records were used as illustration of various indexes. The strategic variance is based on the tendency of normative populations to agree on an item as very true or very false, for example, the F scale consists of 64 items highly agreed on by the normative group, so that a divergence of more than five items is significant; a subject's high scores show non-communality with the normative group, likeness to the criterion group; middle range scores show communality with the normative group; very low scores show similarity to the normative group, but

above average adherence to the modal response.

Wiggins rated ten commonly-known Social Desirability scales. A notable result was that screening efficiency decreased in proportion to the amount of communality of the item; the K scale had .53 communality, but only .217 screening efficiency in detecting faking good; the endorsement of socially desirable items by these subjects was very high; endorsement favorability drops as communality approaches the controversial stage of medium selection by the group.

Method variance arises from the true-false choice of communality with a certain group. Stylistic variance arises from response consistencies in acquiescence versus cautiousness. Acquiescence is the tendency to agree with a written statement when no personal issue is at stake; it applies to items of medium communality, that is, high controversiality.

Various acquiescence scales were checked on the records of the 100 college students, who are assumed to be non-acquiescent; the results are doubtful, because there is no agreement among authors on statistical criteria by which to judge acquiescence.

The degree to which acquiescence and communality are dimensions of the MMPI is uncertain; when items of high communality are involved, there is no necessary relationship between the number of "deviant true" responses; they have a correlation of .13 on the F scale. The deviant true factor is the strongest in MMPI studies of

variance. Wiggins concludes that Deviant True and Deviant False contribute to scale variance on the MMPI because they are receptacles of variance due to strategy (differentiation of deviant criterion groups), method (uniqueness of the MMPI item pool), and style (acquiescence-cautiousness in the subject). He suggests an intuitive hypothesis: the K scale represents a fusion of hypercommunality and cautiousness, as shown by a scattergram of deviant true and false responses showing non-communality, acquiescence, hypercommunality, and cautiousness. Scale 2, 3, and 6 (D, Hy, Pa) represent fusions of cautiousness and non-communality; Wiggins hopes that these hunches may help in future factor analysis.

Some landmark studies have been produced by Jackson and Messick (1958, 1962). In 1958 they showed that the major common factors in personality inventories of the true-false or agree-disagree type are interpretable primarily in terms of style of responding rather than specific item content. In 1962 they reported on response styles on the MMPI, making a comparison of clinical and normal samples. Their purpose was to validate the findings on the dominant role of the response style of acquiescence and social desirability in determining response variance on MMPI; to see how much these influence responses of widely differing populations; and to study the differences between the groups. The authors had tested a prison population, found that the two factors of acquiescence and a consistent tendency to respond desirably or undesirably had caused 53% of the total variance. The subjects of that study had been 194

neuropsychiatric patients; and 334 college students are now compared with the former group; all subjects took the MMPI; the scoring was on true and false keyed items of the clinical and validity scales; five social desirability scales were constructed with all items scored True, to get the degree of acquiescence at various levels of desirability. The results showed that there were nine significant factors, the first two being acquiescence, which exerted influence on nearly all scales, and consistent tendency to endorse desirable or undesirable content; most clinical scales got high loading in the direction of undesirability. In both groups the two factors accounted for more than 50% of total variance; other factors had little influence overall.

The authors divided the standard scales into True and False subscales; this emphasizes acquiescence, as is obvious; but even after the acquiescence factor was removed, the T and F keys for a given MMPI scale showed a marked tendency not to load on the same factor; this lessens the confidence with which characteristics can be unequivocally attributed to an individual on the basis of total scores (T + F) for the particular scales.

Recent research on internal structure of inventories like the MMPI shows very substantial response style effects which render the tests doubtful in their capacity to diagnose a particular pathology. The True-False format subjects the profile to excessive influence from the response style effects like acquiescence and desirability bias; this militates against reliable differential diagnosis.

Various pathological states yield stylistic patterns on the MMPI which are highly intercorrelated; this weakness seriously lessens discriminant validity of the scale scores.

The authors conclude that experimental controls for response-set biases are necessary for effective discriminant diagnosis; these controls have yet to be devised.

Comment: The caution against expecting water-tight clinical syndromes is very sage. A more moderate expectation is in keeping with the sense of the authors of the MMPI, who have never made exaggerated claims for its discriminant powers. This tempered enthusiasm would not, however, destroy its usefulness as a screening instrument, since here the objective is to discern poor adjustment in general, not a specific psychiatric diagnosis of technical accuracy. On the other hand, its susceptibility to the influence of the two factors would have a very distinct bearing on the interpretation of profiles rendered by the MMPI; the conclusions of the authors are in conformity with the results produced by the 461 subjects of this present study, many of whom candidly acknowledged the presence of the second factor in their test-taking attitude.

McGee in 1962 published a study of relationship between response style and personality variables; a measurement of response acquiescence was proposed in this critical study of the view, proposed by some authors, that the agreeing response tendency is based on a central personality syndrome. This report was an elaboration of a

phase of the 1958 study of Jackson and Messick. Two hundred and eighteen college students were given six different scales of acquiescence, three with meaningful verbal content, three without. Correlation was found only in the scales containing similar verbal content; the author concludes that it is likely that there is no general trait of acquiescence independent of the specific instrument used to measure it.

BRIEF REVIEW OF LITERATURE ON KUDER PREFERENCE RECORD

A very brief review of the specific Kuder literature particularly pertinent to the present study will be given here. This limited review would seem sufficient under the particular circumstances, since the profiles on the Kuder for the successful group of 40 subjects and the unsuccessful group of 77 subjects were strikingly similar, and the results of the Kuder are presented here more for their negative significance than for any positive screening effectiveness that the test might possess.

Bursch in 1952 reported "Certain Relations between the KPR and the MMPI". He hypothesized that the students whose Kuder profiles were most characteristic would show the least amount of maladjustment, and vice versa; the MMPI is assumed to give valid measures of adjustment. Fifty-nine men and 26 women with median age of 21 participated as subjects of the study. Bursch concluded that the experimental group shows a characteristic profile on the Kuder;

conformity to the pattern of tested interests is associated with less than the expected amount of disturbance as measured by MMPI; non-conformity to the pattern of tested interests is associated with greater correlation than the expected amount on the measure of disturbance indicated by MMPI; so his hypothesis is supported by the data.

Comment: The persevering group and non-persevering group in the population of the present study proved to be almost identical in interests as measured by the Kuder, except in the one area of computational scale, where there was a significant difference of three and a half points. This is a characteristic pattern. The correlations between deviation from the characteristic Kuder pattern and degree of disturbance indicated by the MMPI were not worked out in this study, because the objective here was to distinguish perseverance from non-perseverance rather than high versus low scorers on the MMPI.

A report of vocational interests of successful and unsuccessful seminarians in a foreign-mission society was made by Friedl (1952). He compared 178 drop-outs with 356 seminarians who were termed successful, having remained from seven to fourteen months in the seminary. He found that the Interest Maturity is not related to success but to predictability. He could predict success 72% of the time, non-perseverance 47% of the time, using a cutting point of one standard deviation.

Comment: This cutting point would be quite ineffective with the Kuder profiles of our population, where the two groups are fairly indistinguishable except in the computational interest scale, and here only at the lowest level of statistical significance, .05 level of confidence. It would seem likely that a longer period of perseverance with Friedl's candidates would tend to level off the differences substantially.

Wauck (1957) found that only two of the nine Kuder interest scales (Outdoor not computed) are significantly related to faculty rating scales. The two highest interests in his population were social service and literary. He found the Kuder useful for guidance of the seminarian, but not predictive of success.

SYNOPTIC VIEW OF THE LITERATURE

In 1936 a rating scale was devised by Thomas V. Moore to assist in screening out seminary and religious candidates who were liable to become mentally incapacitated.

In 1942 McCarthy used a large battery of tests to analyze the character of the successful seminarian; general fitness for success was summarized in 10 traits on a faculty rating scale.

In 1947 Burke sought a battery of tests that could screen out unfit candidates for priesthood.

In 1948 William Bier, S.J., proposed a modified, abbreviated MMPI for seminarians, noting that their average scores were more

elevated than those of the normatizing lay group. It has been Bier's hope that time and numbers will validate the specific norms for seminarians.

Critique: Bier assumes spontaneous replies; the experience with the subjects of the present study indicates how role-playing can influence the results; the need of proper orientation is emphatic.

In 1957 Wauck studied batteries of tests as screening devices, using seminarians who were already in the major seminary, a selected group. He found little correlation between MMPI scores and faculty rating of subjects. Wauck concluded that with such a highly selected group the MMPI could not be used as a predictive instrument.

In Wauck's MMPI profiles the group favorably rated by faculty had higher scales than the unfavorably rated group; this result has not been found elsewhere, and could have been a result of faking good on the part of the seminarians who were regarded least favorably by the faculty.

In 1957 Murray concluded that the seminary atmosphere and pressure tend to elevate scores on MMPI; other factors also tend to push scores upward; a T scale of 55 instead of 50 was proposed as average for seminarians.

In a companion study (1957) Mother Elaine Sandra found that scores were likewise elevated for religious women. But the compar-

iative profiles in all these cases are so ambiguous that any conclusions would seem quite tentative.

In 1958 Rice tested volunteer candidates for priesthood anonymously, concluded that Bier's modification tends to raise the scores over the original full MMPI; the K-correction elevates scores of seminarians unduly, and the standard scoring of MMPI distorts the results; so if the MMPI is to be used as an assessment instrument, each seminary must establish the norms for its own population.

Rice's subjects were volunteer, anonymous, and nearing the end of seminary training or already ordained. It is reasonable to assume that they had no reason to fake good or role-play an ideal candidate. Rice's criticism of the K-correction, however, does not seem to provide much practical positive help in interpreting the MMPI.

In 1960 Barry devised a "Religious Scale" from the 81 items on MMPI which distinguish well-adjusted from poorly-adjusted seminarians. Bier's modified MMPI has not been adopted by many seminaries or institutes; and we still do not have a clear-cut "typical, well-adjusted seminarian profile" from the MMPI.

In 1961 Gorman compared faculty ratings with elevated profiles and medium profiles on MMPI tests of minor seminarians, and also on the Kuder test. Faculty ratings did not effectively distinguish the two groups; Gorman concludes that an elevated MMPI profile does not necessarily indicate poor adjustment for seminary life, but may

indicate need of counseling.

In a companion study (1961) McDonagh cut off high scores from low scorers on the MMPI; faculty ratings did not segregate the two groups; there were no significant differences on the Kuder scales; this population of fifth year seminarians was significantly higher on five MMPI scales than the fourth year seminarians of Gorman's study.

In 1962 Petreolus Hispanicus compared MMPI profiles of ten seminarians who dropped out and 40 who remained at least one year, found three significantly higher areas among the drop-outs, tentatively identifies "well adjusted" and "suitable" candidates on this basis. Elevated scores in three areas of MMPI (Pd, Pa, Hs) were reflected in faculty ratings of less than average suitability; but the elevated scores in four areas were not considered disqualifying by faculty; two elevated areas were partly recognized, partly ignored by faculty ratings. From such small numbers and so short a period of perseverance any generalizations must be considered fairly speculative.

In 1962 Weisgerber reported a five year survey of testing candidates. One third dropped out; a psychologist made predictions from the tests, was correct on 45% of the drop-outs; MMPI scales showed no significant differences. No patterns emerged to indicate future failure of candidates.

GENERAL CONCLUSIONS:

1. Each seminary produces somewhat different profiles in the MMPI and Kuder.
2. Since 1936 psychologists have been attempting to devise scales, tests, batteries of tests, that will successfully predict perseverance or failure in candidates for priesthood and religious life. It was at first hypothesized that evidence of emotional disturbances on personality tests would serve as a reliable predictor of failure. It has now become clear that a normal record on the MMPI cannot be considered identical with a guarantee of perseverance in seminary training.
3. The MMPI was designed as a clinical instrument, not as a measure of vocations. It will reveal something of the presence of emotional problems, and can serve to designate the seminarians who might profit by special counseling. To attempt to use it as an instrument predicting successful candidacy is to subject it to many uncontrolled variables that definitely influence the perseverance of candidates.
4. The authors of the MMPI recognized that the profiles are influenced by role-playing, both faking good and faking bad. It was hoped that the validity scales would detect this. Recent studies have shown that although faking bad can often be detected, there is no effective way to detect a subject who is faking good. Consequently, where the subject believes that the test

is being used as a screening device, we must assume that his responses will be influenced by whether he wishes to make a good impression or, possibly unconsciously, wishes to be told that he has no vocation and is free to leave.

This emphasizes the principle that the MMPI was not designed as a screening instrument, but as a clinical device for a setting where faking good is not a problem, as in a mental health center.

5. The early optimism about the difference between Kuder profiles of persevering and non-persevering candidates has now subsided. There are no fixed patterns available to serve as reliable predictors.

CHAPTER III

PROCEDURE

The subjects who were tested were nearly all from two sources. A first group consists of the high school seniors of the preparatory seminary of the Religious Institute; the tests are administered each year to the fourth year students in April; if they are admitted to the novitiate they are received in August of the same year. Most of these boys are in their fourth year of residence in the seminary; a few come to the seminary as transfers from other high schools.

The second group, somewhat more numerous, are college level students or college graduates who reside in a distinct house of studies connected with a university conducted by the priests of the Institute; these students pursue their classes at the university. The tests are administered to these students in the Fall, shortly after the opening of the school year. They are to be admitted to the novitiate the following August, and there is a substantial drop-out in this interval.

The testing of both groups has been conducted by the Guidance and Testing Services of the university, under conditions that remained constant from year to year; testing personnel has remained unchanged throughout; the author has participated in administering these tests as an observer-assistant for the past several years. The battery of tests includes the Ohio State University Psychological Test, the MMPI, and the Kuder Preference Record. Normally, all the

tests are given on the same day.

The seminarians are given the standard instructions for taking the test. They have not been told what use would be made of the tests, but have been assured that they are of a confidential nature.

In this study the group means of the MMPI scores and the Kuder interest scores have been taken. The mean of the successful group was compared with the mean of the unsuccessful group for significant differences. Then various methods of obtaining a cut-off score to discriminate between the two groups were employed, to find whether a predictive use could be made of the profiles. Both raw scores and standardized scores were employed in searching for a cut-off point.

Standardized scores, with K-correction of the raw scores and without K-correction, were employed in search of an effective cut-off point that would distinguish a successful profile from a drop-out profile.

Ten faculty members from the two training houses were invited to give a rating on a five-point scale, representing their judgment at the time when the candidates took the tests, whether each individual had a poor, fair, average, good, or excellent chance to persevere through the training to priestly ordination. This evaluation was necessarily a retrospective attempt to recall, from notes and actual voting records, the judgment that the staff members had held regarding the seminarians. The faculty members did not make a

rating unless they were sure of what their judgment had been. Only the subjects that were rated by at least four faculty members were included in this study; the limitations in the rating procedure held down the number of rated unsuccessful candidates to fifty; a random sample of 50 of the successful candidates was chosen to compare with the drop-out candidates.

It is obvious that this faculty evaluation must be regarded with distinct reservations, since some of the subjects had passed through the seminary as long as nine years before the rating was made, and the faculty were aware of what had been the outcome of the candidacy. It is not possible to know how much unconscious influence this might have exercised over the rating team's effort to recall their judgment at the time when the candidate was tested. The predictive value of faculty rating will only be objectively known after a five year wait determines what will have happened to the candidates who had not yet entered the novitiate at the time of the evaluation. These candidates, of course, do not form part of this study.

The drop-outs from the training course have been found to occur mainly at three stages of preparation; first, a certain number, perhaps amounting to twenty per cent, are eliminated from the program after taking the tests but before actual admission to the novitiate; the tests, however, have not been used as screening instruments to exclude candidates from admission to the noviceship; secondly, a

large number of drop-outs occur during the year of noviceship; and thirdly, a smaller number but still a substantial group sufficient to make a significant change in the mean profiles, are eliminated during the course of their temporary vows and are not admitted to perpetual profession. Once the candidates have made perpetual profession, the percentage of those who fail to continue on to priesthood is very small.

Consequently, there is a group of about one hundred candidates who have been tested but who are still in temporary vows. These have not been included because the objective of this study is to compare the unsuccessful candidates with those who are definitely successful and have either arrived at priesthood or are virtually certain to persevere until ordination as priests.

No previous study that this author has found has had the advantages of a ten year period of testing, with such clear-cut contrast between unsuccessful and successful candidates in large numbers. The objective of contrasting such definitely distinct populations is responsible for the apparent disproportion between the 335 who have dropped out of training and the 126 who have persevered to perpetual profession. Many of these successful candidates, of course, are now priests. At the time of testing, the mean age of successful candidates was 19.2 years; that of the unsuccessful candidates was 19.7 years.

CHAPTER IV

DESCRIPTION OF RESULTS

The MMPI was given to 461 candidates; of these 335 dropped out of training, 126 persevered to perpetual profession. A study was made of both the raw scores and the standardized T-scores in each of the four validating areas and the ten "clinical" areas of the MMPI.

The means, the standard deviations, the standard error of difference of means, the t-ratios of significant differences, were obtained for the two groups. A t-ratio of 1.96 would constitute statistically significant difference at the .05 level of confidence. A t-ratio of 2.576 would constitute statistically significant difference at the .01 level of probability.

Since the L and F scales of the MMPI are not true T scales, the raw scores were used for computing the means and differences of these validating scales.

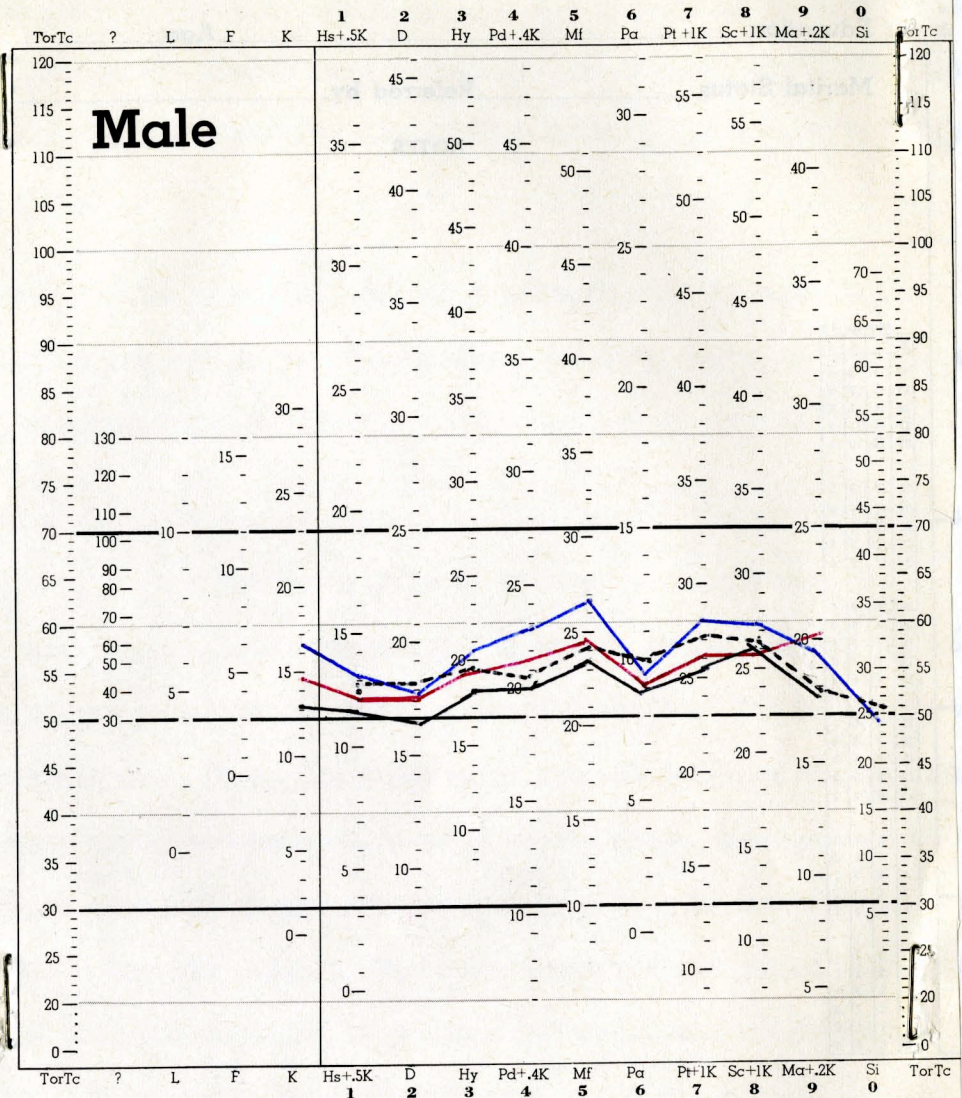
In the Kuder records, raw scores were used to construct the profiles of a sampling of 40 candidates who persevered through the five years to perpetual profession, and a proportionate sampling of 77 candidates who dropped out of training.

Again it must be observed that there are well over a hundred candidates currently in the course of training who were not included in this study, because they have not yet arrived at perpetual profession and so cannot be considered definitively successful candidates.

TABLE 1

COMPARISON OF MMPI SCALES FOR ENTIRE GROUP
WITH OTHER SIMILAR POPULATIONS

	Present Study N = 461		Goldstein's College Men N = 5035		McDonagh's Seminary Students (Grade 13) N = 136		Gorman's Seminary Students (Grade 12) N = 188		Murray's Priest Profiles N = 100
Scale	Mean T S.D.		Mean T S.D.		Mean T S.D.		Mean T S.D.		Mean T
K	57.73		(54.5)		----		51.4		----
		9.70	14.5	4.6	----			8.3	
Hs	54.48		52.3		53.17		50.9		56.90
		8.19		8.3		8.2		9.3	
D	52.70		52.8		53.18		49.4		55.53
		9.30		11.1		10.0		11.6	
Hy	57.35		55.0		55.02		52.4		59.00
		7.43		7.8		7.8		8.3	
Pd	59.85		56.3		54.59		53.2		61.85
		8.38		9.8		8.8		9.7	
Mf	62.52		58.5		57.80		56.2		63.14
		9.47		10.1		8.5		9.5	
Pa	54.74		53.0		56.23		52.3		55.74
		7.97		8.3		9.2		8.8	
Pt	60.09		56.7		58.54		55.4		59.14
		9.30		10.3		10.2		10.8	
Sc	59.74		56.9		57.98		57.4		62.86
		9.47		10.8		9.7		10.8	
Ma	56.40		58.7		52.75		52.4		56.74
		9.92		10.2		10.4		10.9	
Si	49.51		----		51.14		----		
		9.84		----		8.3		----	



- Subjects of this study
- Goodstein's study of college males
- - - - - McDonagh's study of first-year college seminarians
- Gorman's study of senior high-school seminarians

Fig. 1. -- MMPI profile of present group compared with other similar populations

The overall picture indicates a total population that is well within the normal limits on all scales. It is not out of line with other seminary populations, especially those preparing for a similar kind of work.

The profile of scales follows a pattern that is remarkably parallel to the pattern of the diocesan seminarians tested by Gorman (1961) and McDonagh (1961).

As might be expected with this older group, the pattern is consistently higher than the profile of diocesan seminarians at the senior high school level (Gorman); the scales ranged from 2.0 to 6.5 points higher on the ten emotion-measuring scales. The K-scale was 6 points higher. It is interesting to note that all of the standard deviations are lower than those of Gorman's group, although the differences are not large. Probably this reflects the difference in age between the two groups. Our group, being a few years older, may be expressing the feelings of persons with a firmer self-image, or at least a more homogeneous self-image.

The group profile corresponded more closely to the profile of diocesan seminarians at the first year college level (McDonagh). This present group had slightly higher scores on five scales, had slightly lower scores on the D area, Pa, and Si; and significantly higher scores on the Pd and Mf areas.

The profile is consistently lower than the profile of Murray's 100 priests, and is closer to this pattern than to either of the seminarian patterns. It must be noted, however, that Murray employed the 1955 Bier revision of the MMPI, an abbreviated form which has a tendency to elevate the scores somewhat.

In comparison with the group profile of college men obtained by Goodstein, this group was approximately two points higher on the K scale and each of the emotion-measuring areas except D, where the scores were approximately the same, and the Ma area, where the mean was two points lower than that of college laymen. (Goodstein, 1956)

The highest scale is the Mf scale, at 62.52 (with K correction), and a standard deviation of 9.47. This T-score is some 4 points higher than that of Goodstein's college men, and 6 points higher than Gorman's diocesan seminarians at senior high school level. This is what would be expected on the basis of the populations measured. Seminarians have been found consistently higher in Mf scales than lay students. And older populations have been found consistently higher than younger populations of similar category, for example, students. (Hathaway & McKinley, 1942; Bier, 1948)

A further explanation of the relatively high Mf scale may be sought in the circumstance that these seminarians are largely preparing for teaching at the college level; the scale is most readily interpreted as reflecting artistic-aesthetic-intellectual orienta-

tion as a prime factor, and an elevated Mf scale would be expected in a prospective university instructor, particularly a candidate for priesthood.

The comparison between this group and the college lay student group would run true to the finding of Bier in his original comparison of seminary groups with other college groups that there is a tendency toward an elevation of about a half a standard deviation on most MMPI scales for a seminarian population. (Bier, 1948). This group showed a tendency toward an elevation of roughly half a standard deviation on eight scales; the exceptions were the D and Ma scales.

Figure I gives the profile of this entire group, along with Goodstein's college students and Gorman's senior high school seminarians.

PROFILES OF SUCCESSFUL AND UNSUCCESSFUL CANDIDATES

A study was made of the profiles of the successful group as contrasted with those of the unsuccessful group. The comparison was between the mean scores for all validating scales and the ten clinical areas, the standard deviations, the t-ratio of differences. This was done first with the T-scores (with K correction); then a similar study was made using the raw scores and their standard deviations.

In the T-scores, there was a significant difference between the two groups only in the Sc area, where the mean for the successful group was 57.82 and that for the drop-out group was 60.46. This difference is significant at the .01 level. No other area showed statistically significant difference, but the Pt area was so close that it can be considered significant.

Two facts are clearly observable in the contrasted profiles; first, the successful group produces lower mean scores in every clinical area, although the average difference is approximately only a negligible one point. And secondly, as the figure of the profiles brings out clearly, the mean profiles run almost exactly parallel, which would indicate that in the two groups we are dealing with a strikingly homogeneous population.

TABLE 2

COMPARISON OF SUCCESSFUL GROUP AND DROP-OUT GROUP, MMPI SCALES:
MEAN SCORES, STANDARD DEVIATIONS, t TEST FOR SIGNIFICANCE

Scores with K-correction						
Scale	Mean <u>T</u> -scores		Standard deviations		<u>t</u> -ratio	Level of significance
	Perse- vered	Drop- outs	Perse- vered	Drop- outs		
K	58.86	57.32	9.44	9.76	1.55	----
Hs	54.06	54.63	7.24	8.51	0.712	----
D	51.55	53.14	8.25	9.63	1.76	----

TABLE 2 (cont.)

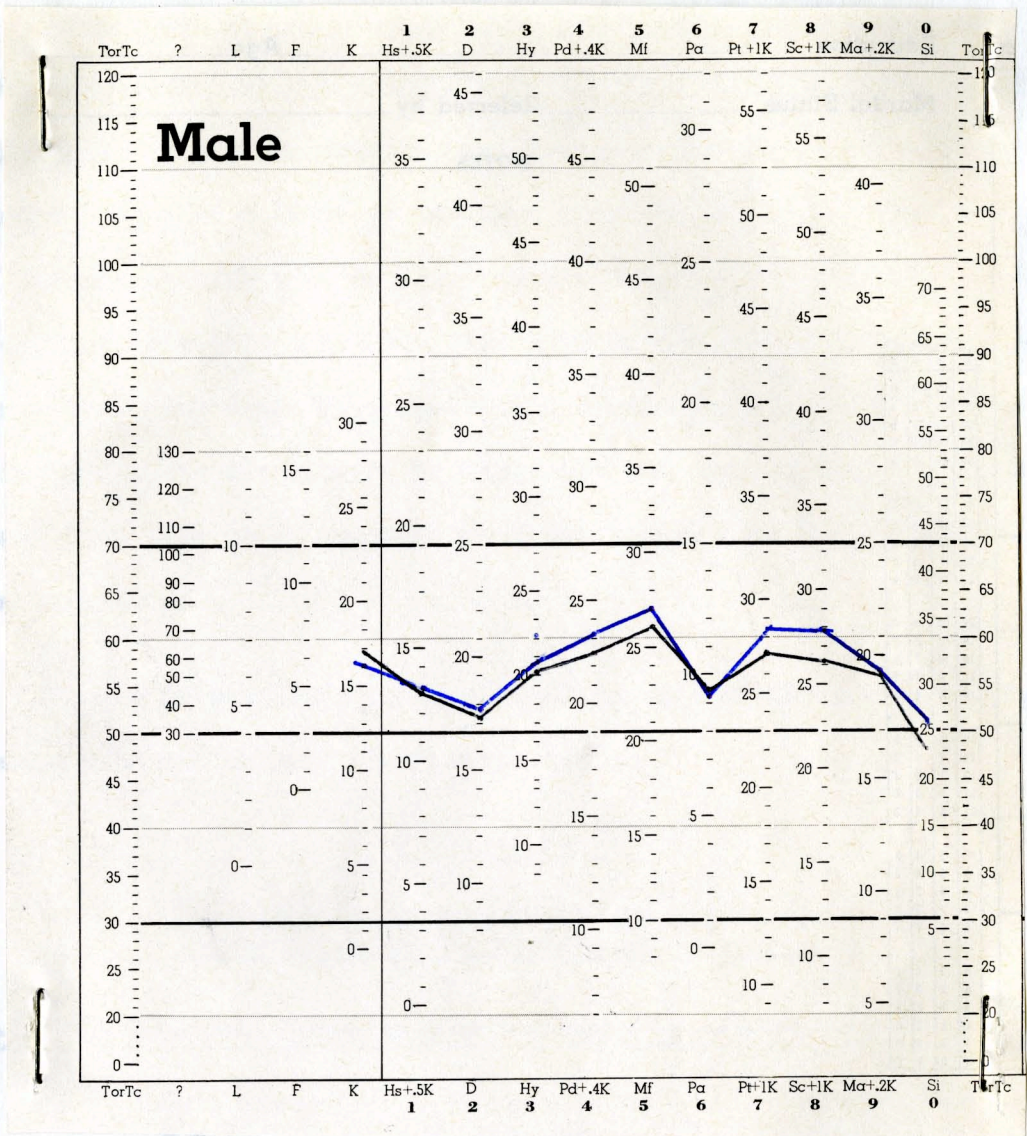
Scale	Mean T-scores		Standard deviations		t-ratio	Level of significance
	Perse- vered	Drop- outs	Perse- vered	Drop- outs		
Hy	56.96	57.51	7.55	7.38	0.69	----
Pd	58.66	60.29	8.49	8.29	1.85	----
Mf	61.27	62.99	8.38	9.80	1.88	----
Pa	54.91	54.68	7.38	8.18	0.29	----
Pt	58.83	60.57	8.00	9.70	1.95	.05 ⁺
Sc	57.82	60.46	8.64	9.66	2.83	.01
Ma	56.13	56.50	9.62	10.03	0.36	----
Si	48.18	50.01	10.63	9.48	1.69	----

Raw Scores

Scale	Mean raw scores		Standard deviations		t-ratio	Level of significance
	Perse- vered N = 126	Drop- outs N = 335	Perse- vered	Drop- outs		
L	3.64	3.70	2.44	2.51	0.23	----
F	3.21	3.79	2.15	2.70	2.42	.02
K	17.01	16.28	5.13	5.19	1.53	----
Ha	4.26	4.81	3.42	3.51	1.53	----
D	17.29	17.86	3.50	4.01	1.52	----
Hy	20.23	20.60	4.13	4.04	0.85	----
Pd	15.81	16.73	3.16	3.40	2.73	.01
Mf	26.08	27.01	4.60	4.97	1.89	----
Pa	9.56	9.67	2.63	2.92	0.39	----
Pt	10.17	11.78	6.40	7.15	2.33	.02
Sc	9.82	11.45	6.33	6.96	2.40	.02
Ma	16.23	16.27	4.12	4.21	0.08	----
Si	23.45	24.53	8.76	8.85	1.17	----

It is interesting to observe that the raw scores are slightly more effective than the T-scores with K correction in distinguishing successful from unsuccessful candidates in our population. This would tend to confirm the hypothesis that the K correction over-corrects the profiles in the case of seminarians. An item analysis of the K scale questions will give a likely explanation. The authors originally considered the K score an indication of defensiveness in the test-taker, and undoubtedly this is a very important factor. But the nature of the questions on which the K score is based would cause a conscientious seminarian, placing a high value on integrity and unselfishness, to score several points higher than the average-idealized lay person.

This could result in elevating the scores of the more conscientious seminarians, who might be expected to survive the rigorous moral discipline, more than the scores of the less-inspired candidates, thereby lessening the gap in their margin of difference.



Successful candidates N = 126

Non-persevering candidates N = 335

Fig. 2.-- MMPI mean profiles of successful and non-persevering candidates for religious priesthood

It is interesting to make a comparison between this seminary group and a similar group studied by Rice (1958), consisting of 73 Religious theological students and newly-ordained priests. Those students were at a level of training considerably beyond the level of the present subjects at the time of being tested, but there was a distinct similarity between Rice's group and the successful group, since both were definitely successful candidates for the Religious priesthood. At the time of testing, the seminarians here reported would have been on an average seven years away from ordination to the priesthood.

It may be particularly meaningful to compare the scores of the groups with and without the K correction.

TABLE 3

COMPARISON OF PRESENT GROUP AND RICE'S GROUP,
WITHOUT AND WITH K CORRECTION OF SCALES

Scale	Rice's group N = 73		Present group N = 461		Successful candidates N = 126	
	Mean w/o K	Mean w. K=17.0	Mean w/o K	Mean w. K=16.28	Mean w/o K	Mean w. K=17.01
Hs	50	55	50.2	54.5	49.5	54.06
D	56	56	52.7	52.7	51.55	51.55
Hy	60	60	57.4	57.4	56.96	56.96
Pd	55	60	56.0	59.9	54.30	58.66
Mf	67	67	62.5	62.5	61.27	61.27
Pa	59	59	54.7	54.7	54.91	54.91
Pt	53	63	52.7	60.1	50.20	58.83
Sc	53	63	52.0	59.7	50.70	57.82

TABLE 3 (cont.)

	Rice's group N = 73		Present group N = 461		Successful candidates N = 126	
	Mean w/o K	Mean w. K=17.0	Mean w/o K	Mean w. K=16.28	Mean w/o K	Mean w. K=17.01
Scale						
Ma	54	56	55.0	56.4	55.00	56.13
Si	51	51	49.5	49.5	48.18	48.18

It would appear that for each of the three groups, the T-score without K-correction produces a more normal and better-balanced profile than the T-scores with the K correction.

This might suggest that for this particular Religious institute, at least, the normative profile of typical candidates can be better worked out if the MMPI scales are computed in the T-score without K correction. This has been suggested by Rice, and it appears to have merit.

It is worth noting that the raw K score for the successful candidates is higher than that for the entire group of 461. This would tend to confirm the hypothesis that the K-score represents a large element of moral conscientiousness in a seminary population, rather than straight defensive attitudes.

ANALYSIS OF THE MMPI PROFILES

The profile of the entire group presents a pattern of scores well within the normal range in all clinical areas.

The highest scale is in the expected *Mf* area, where the T-score was 62.5 for the entire group and 61.27 for the successful group. The next three highest areas were *Pt*, *Pd* and *Sc*, with approximately the same level of 60.0 for the entire group (52, 52, and 56 without the K correction) and a level of 59, 59, and 58 for the successful group (50, 54, 50 without the K correction).

This would indicate a group of students who are reasonably conscientious (as indicated by K scales of 58.9 and 57.3); they are not scrupulous (Pt of 60.1 and 58.8); they have advanced cultural interests but fall far short of the effeminate-deviate level (Mf of 62.5 and 61.3); they are sociable and companionable (Si of 49.5 and 48.2); but are quite capable of withdrawing from social activities to engage in studies and prayer (Sc of 59.7 and 57.8).

But this is the picture of a "good seminarian", and it seems to be true of those who dropped out of training as well as those who persevered. This obviously raises a question: are both the successful and the unsuccessful groups answering the questions with the same mental outlook of the "good seminarian", or is the reason for the drop-outs some factor that is not detected by the profiles in MMPI?

Even a cursory glance at the compared profiles of success and discontinuance would indicate that they do not indicate two substantially different populations. The two groups obviously constitute a single homogeneous population.

If we resort to raw scores we have significant differences on three "clinical" scales (Pd, Pt, Sc) as well as on the F scale; in fact the difference is significant at the .02 level of confidence or better.

If we use only the T-scores with K correction there is a difference significant at .05 level in scale 8 (Sc), and just short of this level of confidence in scales 2, 4, 5, and 7 (D, Pd, Mf, Pt) where the level of confidence reaches .10.

These scores are much too meaningful to ignore. They may fall short of a completely satisfactory capacity to predict success or non-perseverance, but they at least furnish us with four trouble spots. Where there is elevation on these scales we can at least anticipate the likelihood that the candidate will have problems of satisfactory adjustment to seminary life.

The successful candidates show an average of 57.8 in the Sc area, the drop-out candidates show an average of 60.5 (computed without K correction the means are 49.8 and 52.5). This plainly suggests that both groups are so well within the limits of a normal population that it is realistically of little avail to point up the statistical difference of scores.

It would appear then, that MMPI profiles do not provide us with a clear-cut differentiation between seminarians who will persevere to priesthood and those who will drop out.

ATTEMPT TO ESTABLISH AN EFFECTIVE CUT-OFF LEVEL

A further study of the MMPI profiles was made to find a cutting-point that would effectively distinguish successful from unsuccessful candidates. The cutting-point was sought in the mean scores obtained

by averaging the scores obtained on each of the scales.

An obvious criterion that could be expected to help was the T-score level of 70 which the MMPI manual designates as the cut-off point between normal score and abnormal elevation.

It must be observed here that both Gorman and McDonagh had established a cutting point for their respective populations, to distinguish a "high" group from a "normal" group; they compared the faculty ratings made of the high and the low group. But the objective in that investigation was not to distinguish directly between perseverers and non-perseverers as is the object of our present study.

The two groups who are subjects of this study were in clear contrast by success or discontinuance. Therefore the objective of this study is a mean score that will distinguish them; or a mean score which when combined with some other characteristic of their profiles will effectively distinguish the successful from the drop-out candidate.

Various methods were used to obtain a cutting score. A review of the results of a number of them follows.

A) The mean score level where there were more than two students who had no scale above 70.

This standard was used by McDonagh (1961). This cutting-point divided his entire group into 43 "high" and 92 "normal" subjects.

The cutting point was 57.3. McDonagh states that "there were five scales above 70 in subjects with a lower mean score than 57.3 but they were widely scattered throughout the 92 remaining subjects in the sample. There was only one Mf scale above 70 below the cutting point." (McDonagh, 1961, p. 38)

Among the subjects of this present study, the level at which there were more than two students who had no scale above 70 was at a mean of 60.6. The candidates with higher mean scores than this included 62 drop-outs and 15 successful candidates; below this level there were 273 unsuccessful and 111 successful candidates. In other words, the cutting point of 60.6 correctly designates 20% of the unsuccessful candidates, but leaves 80% of them undesignated. It falsely designates 12% of the successful candidates.

As a cutting point it would be only 8% more effective in designating unsuccessful than successful candidates. This could hardly be regarded as a highly useful predictive score.

(B) The point beneath which the subjects did not have scores over 70: "high" versus "normal" groups.

This criterion was used by Gorman to distinguish a "high" group from a "normal" group. It placed the cutting point for his population at a mean score of 58.8. A few isolated individuals who had scattered scales of 70 but mean scores of less than 58.8 were considered as false positives by Gorman (1961, p. 64)

Among the population of this present study, in a descending count the point at which the profiles stop having scores of 70 with regularity is a mean score of 52.1-- which is almost dead-level normalcy on the MMPI scales. As a cutting point a mean of 52.1 would be fairly meaningless, because some 90% of all candidates in the population of 461 have mean scores higher than this level. There is no possibility of having recourse to the refinement of false positives, because above the mean level of 52.1, scales of 70 appear regularly in both successful and unsuccessful profiles.

We must conclude, therefore, that the suggested criterion is ineffective with the present population to predict perseverance or discontinuance of the candidates. Neither would it distinguish "high" from "normal" profiles in the 461 subjects of this present study. We must recall that Gorman was not working with successful versus unsuccessful candidates for priesthood; his was not a predictive study, but a study of present emotional adjustment as indicated by the MMPI. His candidates would have had some eight more years of training before arriving at ordination to priesthood.

It is interesting to study the use of a T-scale of 70 as a cutting score, if we accept the common assumption that it serves to distinguish abnormally high scales from normal range scores. A breakdown of 70 scales in the present population will highlight this.

Of the 335 who dropped out of training, there were 167 who had

no T-scale of 70 or over in any "clinical" area; this is exactly 50% of the non-persevering candidates. The remaining 168 had at least one scale of 70 or over.

But of the 126 successful candidates, there were 52 who had at least one T-scale of 70 or over; this is approximately 40% of the successful seminarians. Broken down further, the figures show that of the 126 there were 31 with one 70 scale, 21 had at least two "clinical" area scores of 70, five had at least three 70 scales, and two had four or more scales of 70 and over. This would strongly suggest that for this seminary population a scale of 70 is not a reliable cutting-point between persevering and non-persevering candidates.

This must not be misinterpreted. The principle does not question the fact that the MMPI gives us a measure of emotional adjustment. It simply highlights the conclusion that deviation from the "normal" is deviation from the attitudes expressed by 700 visitors to University Hospitals in Minneapolis and 250 college entrance applicants. These lay people are the group whose responses to the questions constitute the "normal" responses. It is quite possible that the "normal" seminarian may differ significantly in attitude from the normatizing lay-folk. The present 10-year survey serves to caution us against too readily identifying "normal" MMPI adjustment with perseverance in studies for the priesthood.

C) The presence of three scores of 70 or over

This criterion was proposed by Benko and Nuttin (1956, p. 102) as a very serious indication of lack of vocational adaptation; they had found scale 7, 8 and 3 (Pt, Sc, and Hy) scores particularly diagnostic of maladjustment for seminary life.

This criterion predicts correctly within a limited group of the present population, because a candidate with three scales of 70 or over has only one chance in ten of persevering to ordination. But unfortunately for the practicality of such a criterion, only 48, or 14% of those who drop out of training have three 70 scales; the remaining 86% of drop-outs are undesignated by this criterion. Five subjects with three scales of 70 or over persevered to perpetual profession.

D) The presence of two scales of 70 or over

The presence of two 70 scales in the present population indicates that the candidate has only one chance in three of persevering to ordination; that is, 28 out of 95 candidates succeeded in spite of this degree of disturbance. But such a criterion has the unfortunate weakness that only 67 candidates, or 20% of those who drop out of training produce two "clinical" areas of 70 or over; the remaining 80% are untouched. 22% of the successful group had two or more scores of 70 or over.

It is noteworthy that the scale 5 (Mf) score is a very sizeable factor in producing T-scales of 70 or over. Of the 52 successful

candidates who had a 70 scale, in 12 cases the scale 5 score was the only one that reached 70; in 22 of the 52, it was one of the T-70 areas. It is also worthy of notice that in approximately three out of four of these cases, the scale 5 T-score was between 70 and 75, or just barely over the line usually employed to delineate normal from abnormal level. This would suggest the distinct possibility that for a population of high literary, artistic, social-service interests such as these seminarians, a T-score of 70 is distinctly low to cut off abnormal from normal response patterns.

E) Using a T-score without K-correction to find a cutting point between the two groups.

A glance at the tables of scores will demonstrate that the K correction lessens the predictive quality of the seminarian profiles. If uncorrected raw scores were employed instead of the regular K - corrected raw scores, the following results would have followed: ten successful candidates would have been purged of their solitary T-score above 70, and the present average of these T-scores would drop from T 73 to 61. In addition, eight successful profiles would be reduced from two scales of 70 to one such scale; two profiles would drop from three T 70 scales to two. The present mean T-score for all of these elevated scales would be reduced from 72.4 to 61.8.

This would leave a total of 40 successful candidates out of 126 with a score of 70 or more. Of these, 12 would be accounted for by scale 5 (Mf) scores of 70 to 75 where this is the only area of

70 or over (since scale 5 is not affected by the K correction). In the light of the age of these candidates, their cultural background, and the career of university instructor that most of them were preparing for, a scale 5 of 75 would probably not be abnormally elevated.

F) A cutting point at mean score of 58.0, with one T-scale of 70 or over, considering scale 5 (Mf) abnormal only if over 75.

This criterion will be 80% accurate for the drop-outs who have a T-scale of 70. It falsely designates 22 out of 126 successful candidates. It fails, of course, to touch the 50% of drop-outs who do not produce a T-scale of 70 in any area.

G) A distinguishing criterion based on two highest scales and three highest scales

A grouping was made of all the profiles on the basis of the two highest MMPI areas and the three highest areas.

Among the successful group, there was no definite pattern of high scales. The combination of scales 5-6 (Mf, Pa) was found in seven records, and 9-5 (Ma, Mf) also appeared on seven records. The 4-3 (Pd, Hy) combination appeared in six records and 9-4 (Ma, Pd) in six others. All other combinations of two highest areas showed on less than six records. This demonstrates that there is very little tendency to cluster.

Among the unsuccessful candidates there was a distinct clustering of profiles with the scale 5 (Mf) score as the highest. Scale 5

was highest in 105 cases, which is 31% of the drop-out candidates; the significance of this, however, is decisively tempered by the fact that it is also the highest scale in 30 profiles, or 23%, of the successful candidates; the difference of 8% hardly provides a helpful criterion to distinguish between the two groups. Scale 4 (Pd) was highest in 55 profiles, or 16%, among drop-outs, and in 24 profiles, or 19%, of successful candidates.

A table shows the highest scores in the two groups.

Table 4

Highest MMPI Scales of Successful and Unsuccessful Candidates

<u>Highest scale</u>	<u>N</u> <u>% of total</u>	<u>N</u> <u>% of total</u>
1 (Ha)	7 = 5%	16 = 5%
2 (D)	3 = 2%	16 = 5%
3 (Hy)	6 = 4%	20 = 6%
4 (Pd)	24 = 19%	55 = 16%
5 (Ma)	30 = 23%	105 = 31%
6 (Pa)	4 = 3%	10 = 3%
7 (Pt)	16 = 13%	36 = 10%
8 (Sc)	13 = 11%	38 = 12%
9 (Ma)	19 = 15%	35 = 11%
10 (Si)	3 = 2%	4 = 1%

A study of the patterns of distribution gives little encouragement in the search for a predictive criterion between success and discontinuance. The patterns are remarkably similar. Moreover, within each scale area the scores are not clustered, but spread out in combinations with other areas. Little of distinct patterning emerges.

A study of the combination of three highest scales reveals that the profiles are almost completely devoid of clustering. Of the unsuccessful candidates, eight had highest three scales in the 5-4-7 areas (Mf, Pd, Pa); five had highest three scores in the 4-3-8 (Pd, Hy, Sc) combination, five in the 5-1-3 (Mf, Hs, Ma) pattern, and five in the 8-7-9 (Sc, Pt, Ma) alignment.

But of the successful candidates, there was no grouping of more than four subjects in any triple combination of areas; four shared the combination of highest scores in the 4-3-8 scales (Pd, Hy, Sc). No other triple combination appeared on more than three profiles.

It seems clear that these combinations of highest areas are not very helpful to predict success and failure in the seminarian of the present population. It has struck this author as rather surprising that there has not been a greater communality of elevated areas. The overwhelming factor that emerges is the rugged individuality of the test-takers.

CONCLUSION: It seems useful to make a comment on the use of the K-correction in assessment of seminary candidates. On the MMPI profile a score of 70 is two standard deviations above the level of the normative group. The K-correction is based on the reasonable assumption that a defensive attitude will hold down the subject's admission of deviant attitudes; therefore, a certain percentage of the defensive-measurement scale is added to the raw score in certain threatening areas in order to give a more objective picture of what the real feelings of the subject are likely to be.

Since the T-scale of 70 has its meaning with reference to the K-correction, if the K-correction is removed it is necessary to construct a new measurement of "normal" and "abnormal", based on average scores of a seminary population. Most seminary assessment programs wish to avoid this, preferring to compare the profiles of seminary candidates with those of other students.

A study like the present one must avoid the temptation to contrast the scores of one group without K-correction over against those of another group with the K-correction. A very meaningful comparison, however, can be made with the uncorrected raw scores of the two groups.

As was suggested by the original graph of profiles, it is not possible to find a clear-cut mean level MMPI score that constitutes a single, practically helpful criterion to distinguish successful from unsuccessful candidates in the population under study here.

The tests here studied have been administered over a ten year period to more than 1000 candidates for admission to the novitiate; from that population, 461 seminarians form the subjects of the present study. A characteristic MMPI profile has emerged from this testing program. Successful candidates produce lower mean scores in every MMPI scale than unsuccessful candidates, but the configuration of profile patterns is very similar.

No single cutting point proves a very useful criterion to predict perseverance or non-perseverance. A cutting point of mean T-score 60.6, for example, correctly designates 20% of the drop-outs; but 12% of the candidates with a mean T-score of 60.6 or over will persevere. Gorman (1961) had used a cutting point of 58.8, and McDonagh (1961) had used a cutting point of 57.3, to distinguish a "high" group from a "low" group; beneath these mean levels the candidates of their two populations produced practically no T-scales of 70 or over. In the present population, no such cutting point is effective for the purpose of designating persevering and non-persevering candidates.

Ninety per cent of the candidates who produced three T-scales of 70 or over did not persevere; but only 48 of the 335 drop-outs, or 14%, produced three such 70-scale areas.

Eighty-three per cent of the candidates who produced two T-scores of 70 or over did not persevere; but only 78 of the 335 drop-outs, or 23%, produced two such elevated scales.

Where there was one scale of 70 or over (but 75 or over in scale 5, Mf), a mean T-score of 58.0 used as a cutting point accurately predicted non-perseverance in 80% of the candidates; a total of 90 of the 335 drop-outs, or 27%, produced a single T-scale of 70. Fifty per cent of the non-persevering candidates, or 167 of 335, did not produce any T-scale of 70 or over.

On the raw scores without K correction there is a significant difference at least at the .02 level of confidence on scale F and on "clinical" scales 4, 7, and 8 (Pd, Pt, and Sc).

On T-scores with K correction there is a significant difference at the .05 level of confidence in only one area, scale 8 (Sc), but scale 7 (Pt) is so close that it is practically at the .05 level. Scales 2, 4, and 5 (D, Pd, Mf) are close to a significant level.

For those who might hope for a clear-cut distinction between successful and unsuccessful candidates, the foregoing criteria might be judged inadequate. This seems to have been the sense of Wauck (1957) and Weisgarber (1962) in evaluating use of the MMPI as an instrument to predict perseverance and non-perseverance.

In the case of the present population, the MMPI would hardly

serve alone as a screening device. This is not to say that it cannot be employed very usefully as a diagnostic instrument revealing the level of emotional disturbance. This would enable seminary and Religious staff to offer assistance to the troubled candidates. This would be quite in conformity with the claims for the test asserted by its authors, who have been realistic about its limitations (MMPI Handbook, 1956, Foreword, p.ix)

A FACULTY RATING IN RETROSPECT

Ten members of the faculties that had trained the candidates over the past ten years were asked to make an evaluation of the candidates on ^a five point scale. Obviously, the effectiveness of this rating to predict success or failure of the candidates cannot be tested with the subjects of this study, since they are composed of 335 who have dropped out of training and 126 who are definitely successful. The faculty rating was completed in the Spring of 1963. There were a few students then in temporary vows who subsequently made perpetual profession or dropped out of training; but faculty ratings on them would have been considerably aided by the fact that they had already successfully passed through the novitiate training; so there cannot be more than a tentative validation to be found in the outcome in this restricted group.

The faculty rating was in reality a retrospective evaluation. The faculty members were asked to go back and make an evaluation based on the judgment they had of the subjects at the time of testing. The limitations of such a rating are obvious: an honest

attempt to recapture an original judgment may be subtly influenced by the factual knowledge that the candidate has subsequently succeeded or dropped out; some of the candidates had been tested as long as nine years before; some had dropped out of training after only a brief taste of seminary life.

This rating by faculty members will be tested realistically only by what happens to the candidates who had not yet entered the novitiate when the rating was made. The definitive results will not emerge until 1970, when the entire group will have been accepted for perpetual vows or have dropped out of training, since after the year of noviceship it is possible for a candidate to remain six years in temporary vows before a final disposition of his candidacy occurs.

The basis of the rating was very simple, namely, whether the faculty member judged that the candidate would persevere through training up to priesthood. They were asked not to evaluate on the basis of whether they personally would approve the candidate; or whether they felt that he would make a good priest or a poor priest; but only on the basis of whether they judged that the candidate would survive the training course to priestly ordination.

The five point scale was:

1. very poor risk to persevere to ordination
2. less than average chance to persevere
3. average chance to persevere
4. better than average chance to persevere
5. excellent chance to reach ordination.

The staff members were asked to refrain from rating any candidate if they were unsure of their evaluation of him before he entered the novitiate. The only subjects who are here considered are those who were rated by at least four faculty members.

For such interest as it may hold for anyone studying faculty evaluations: a sampling of 50 successful candidates were accorded a rating of 3.56 by the faculty; and a sample of 50 drop-out candidates were rated 2.54.

Of the 50 successful candidates, 42 were given a mean rating of 3.0 or more; eight were given a mean rating of less than 3.0; this amounts to 84% correct judgment, 16% misses by faculty.

Of the 50 unsuccessful candidates, 35 were given a mean rating of less than 3.0; fifteen were given a mean rating of 3.0 or more. This amounts to correct prediction in 70% of the cases, incorrect prediction in 30% of the population.

By way of loose cross-check on the faculty scale, it is interesting to observe that between the time of the faculty evaluations and the time of this present writing, there have been 13 drop-outs among those who were in temporary vows. On these subjects the average faculty rating was 3.04. All of these subjects had passed through the novitiate and at least one year of temporary vows. In the case of four of them, the rating was below 3.0, that is, below average chance to persevere. This suggests that the faculty ratings

would be highly effective as to those who will not persevere through the novitiate years; but they would not be sensitive enough to distinguish those who might survive the religious-oriented training of the novitiate, but not persevere through the education-oriented training thereafter.

The mean MMPI scores of the random sample of 50 successful candidates who were evaluated was 55.5; for the 50 unsuccessful candidates the mean was 56.2. Inasmuch as the homogeneity of the total population of this report makes it fairly impractical to establish a clear single cutting point or other single method of distinguishing successful from unsuccessful candidates on the basis of the MMPI profiles, it is hardly feasible to establish satisfactory correlations between faculty rating and MMPI records of the group.

Even if it were possible to work out an acceptable correlation figure, it could not be regarded as more than tentative, since there would always be the suspicion that the faculty had been influenced in their retrospective judgment by the known fact of success or failure of the candidate.

A SELF-EVALUATION OF TEST-TAKING ATTITUDES ON THE PART OF THE SUBJECTS OF THIS STUDY

In the course of investigation the author became increasingly surprised at the similarity of profiles among the successful candidates and those who had dropped out of the seminary. It called to mind the sophisticated attitude expressed by Hathaway, the co-author

of the MMPI, in the introduction to the MMPI Handbook published in 1960, (Dahlstrom and Welsh, 1960) and the monition included in the MMPI Manual of 1951. It is indicated that we must expect people to role-play when they take tests like the MMPI; they tend to produce the profile that is expected of them. On successive re-tests, they will produce somewhat different profiles, and who is to say that one is more true than the other. A few hours time lapse can produce a substantial difference.

Hathaway likes to think of these different pictures as multiple personalities. (MMPI Handbook, 1960).

If we can assume that the successful candidates responded to the questions with a reasonable degree of spontaneity, must we suspect that the unsuccessful candidates were lying about their feelings when they presented a self-portrait that is substantially the same as that of the successful candidate?

The author was curious to learn what had been the attitude of the subjects when they took the tests. A questionnaire was devised, and a sizeable group of the test-takers were invited to fill it out informally and anonymously. The invitees included 10 young priests, some 60 perpetually professed seminarians now engaged in their theological studies, and some 80 college-level seminarians in temporary vows.

An adequate sampling return of 65 subjects was obtained. All 10 of the priests, 26 of the theological students, and 29 of the

college-level students responded.

The questionnaire covered three items:

1. the subject's notion of the purpose of the testing at the time of taking the tests;
2. the test-taking attitude: spontaneous responses as contrasted with role-playing the ideal seminarian and giving the "right" answer;
3. evaluation of the usefulness of the tests; whether they are adapted to the purpose, whether adequate to delineate a well-adjusted seminarian; whether the test-taking attitudes and conditions surrounding the administration of the test are calculated to influence the resulting profiles.

Where the subject indicated that his responses were partly spontaneous and partly defensive, a half-point was scored in each of the two areas.

The results were revealing. Of the 65 volunteer responses, five indicated they were uncertain how they had answered, twenty-five and a half responses indicated definite influence of role-playing, and thirty-four and a half responses indicated spontaneous replies.

As to their idea of the purpose of the testing, twenty-nine felt that it was to screen out undesirable candidates, thirteen felt it was to provide them with help in their vocation if they needed it,

twenty-five thought it was routine college-entrance testing and probably would be filed without anyone's ever paying much attention to the results. (This sophisticated attitude will recall that a large segment of this population were college freshmen who were subjected to a considerable array of tests, college entrance, placement in various subjects, interest and personality inventories, and the like). There was some slight overlap, a few believing the purpose was to screen out and also to bring personal help if needed.

Since most of the volunteers answering the questionnaire were perpetually professed subjects, they constitute a part of the successful group. This leaves the distinct conclusion that a considerable segment of the persevering candidates were short on enthusiasm for the testing program. If this is true of the successful candidates, it seems safe to assume that the drop-out candidates would have been at least equally defensive. It seems quite possible that the entire population of this study tend strongly to role-play the good seminarian, that is, to prevent themselves at approximately their ideal best. Perhaps this is what should be anticipated in any seminary screening program.

As to their appraisal of the tests, 31 indicated their conviction that the test-taking attitude militated against the tests' capacity to present an accurate picture of the adjustment of seminarians; 19 believed that the tests were not adapted to seminarians, and other tests should be substituted if more effective tests were available;

19½ votes conveyed the view that the tests are useful, and the seminary staff might well be trained in how to interpret them, and use them in the spiritual direction of the seminarians; seven stated that the testing ought to be discontinued; their chief reason is that they consider the testing a useless and distasteful invasion of privacy.

The commonest complaint against the MMPI was that the questions are ambiguous when considered in the context of a screening test for seminarians. Many questions which would be quite uncomplicated when asked of a patient in a mental health center or a casual visitor at a hospital in Minnesota, can take on different implications and subtleties of meaning when put to a candidate for admission to priesthood or a Religious novitiate. This problem of semantics was bothersome to most of the subjects, if we can generalize ^{from} the questionnaires. Several of them expressed it this way: "I knew what I meant by the words used, but I ~~wasn't~~ at all sure what they meant, and I couldn't tell how the answers would be interpreted by the seminary authorities."

It is interesting to observe that the oldest respondents, the ten priests, were unanimous in their conviction that the desire to avoid being screened out of the seminary had definitely caused faking good. The perpetually professed theological students were much more sure than the more recent candidates that the desire to give the right answers had definitely limited the spontaneity of their replies. It is interesting to speculate on what influence might have been exercised on their perspective by their years of seminary training

itself. It is quite possible that after some years of seminary training or Religious life the self-image changes perceptibly and the candidate comes to a realization that his self-image in the flush of early fervor was idealized, although at the time it seemed quite honest.

The more recently tested candidates in this sample were more inclined to feel that the tests should be used for their spiritual guidance; they gave some indication that the present conditions of test-taking somewhat limit the capacity of the tests to present a picture of adjustment that is adequate.

A summary of responses to the questionnaire follows:

RESULTS OF QUESTIONNAIRE ON TEST-TAKING ATTITUDE AND EVALUATION OF THE TESTING PROGRAM

1. When I took the tests I had the feeling that the tests were:
 - a) to screen out undesirable candidates 29 (priests 6.5; theological students 13.5; college-level seminarians 9)
 - b) to help me if I needed help 13 (0.5; 5.5; 7)
 - c) neither of the above 25 (3; 8; 14)
2. The test instructions tell you to answer the questions spontaneously, with the answer that comes to you first:

When I took the test my answers in the main represented:

 - a) my spontaneous feelings 34.5 + 5 uncertain (0.5; 14; 20)
 - b) the feelings of a "good seminarian" 20.5 (7; 6; 7.5)

c) I tried to figure out the "right"

answer so as not to hurt my chances 20.5 (7; 6; 7.5)

3. My present evaluation of the testing is:

a) the tests are useful, and the seminary instructors should be trained in how to interpret them and use them for our spiritual directions 19.5 + 3 uncertain

b) the testing ought to be stopped 7

if so, main reason? useless: results not given to subject:
false picture of a seminarian

c) the tests are not adapted to seminarians, and other tests ought to be substituted 19 + 1 uncertain
(3; 11; 5)

d) our attitudes and the conditions of testing militate against the tests' being able to convey an honest picture of our personal problems 31 (6; 5; 16)

e) straight faculty rating by Local Council and faculty is most reliable 5 (2 opposed)

THE KUDER PREFERENCE RECORD

A study was made of the Kuder scores on a random sampling of 40 successful and 77 unsuccessful candidates.

For each group the mean of each scale was computed, the standard deviations, standard error of mean differences, the t-ratio of differences, and the statistical significance of the differences.

The results disclosed that the homogeneity of the group that had characterized the MMPI scales was even more striking here. The profile patterns for the two groups are very similar.

There was a statistically significant difference in the area of computational interest only; the successful candidates had a mean score of 26.7 as opposed to the mean of 23.1 for the drop-out subjects. This difference is significant at the .05 level of confidence.

The successful candidates showed non-significantly higher scores in four interest scales, and a barely significant difference in the computational scale -- which was sixth highest for the successful and ninth highest for the drop-outs, placing the successful candidates in the 44th percentile of ranking and the drop-outs in the 28th percentile. The drop-out candidates expressed higher interests in the remaining five areas; they were slightly higher in social service interest, which seems somewhat surprising; and 4.7 points higher in persuasive interests, approaching statistical significance.

The close similarity of profiles would indicate that the difference in patterns between the two groups would hardly provide a practical criterion for predicting success or non-perseverance, even with the barely significant difference in computational interest.

Table 5

Kuder Preference Record Scores for Successful
and Drop-out Group in Rank Order

	Successful group N = 40				Unsuccessful group N = 77					
<u>Scale</u>	<u>Mean</u>	<u>SD</u>	<u>%ile</u>	<u>Mean</u>	<u>SD</u>	<u>%ile</u>	<u>Rank order</u>	<u>t ratio</u>	<u>Sign. diff.</u>	
Soc. serv.	52.2	12.3	78	53.7	14.0	81	(1)	0.61	---	
Literary	24.3	8.1	71	22.9	7.7	66	(3)	0.89	---	
Musical	14.3	5.4	66	15.6	9.1	71	(2)	0.94	---	
Scientif.	40.5	14.5	50	39.5	14.2	47	(6)	0.37	---	
Artistic	20.9	8.8	46	23.2	13.5	56	(4)	1.16	---	
Computat.	26.7	9.1	44	23.1	9.2	28	(9)	2.06	.05	
Persuas.	36.5	15.2	41	41.2	13.0	54	(5)	1.67	---	
Outdoor	37.1	14.5	34	41.2	14.3	44	(7)	1.44	---	
Clerical	39.1	11.4	31	38.8	11.4	29	(8)	0.16	---	
Mechanical	31.8	13.7	19	30.5	13.0	16	(10)	0.50	---	

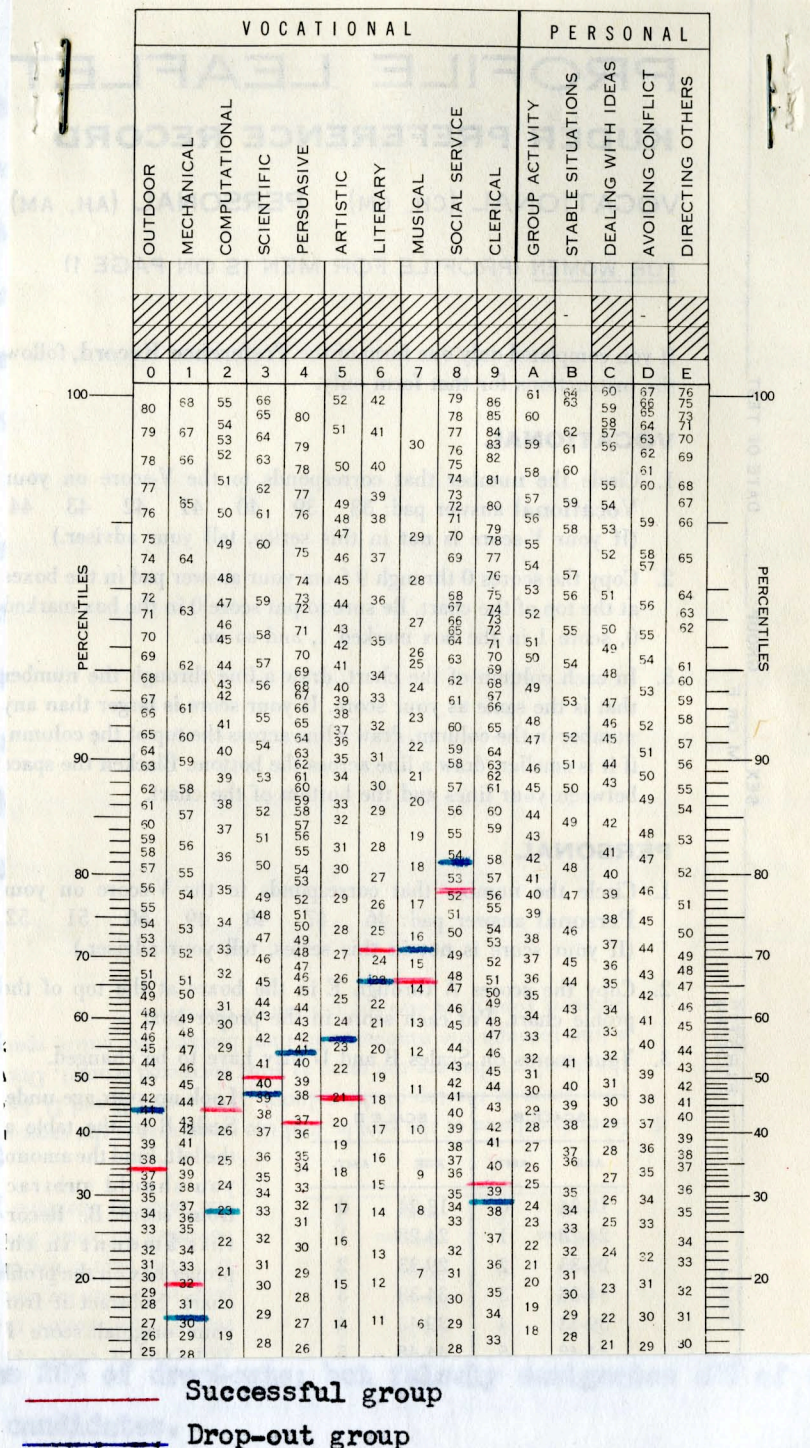


Fig. 3. -- Kuder Preference Record for successful group and drop-out group, in rank order.

CHAPTER V

SUMMARY AND CONCLUSIONS

This study tested the following hypotheses:

1. It was hypothesized that a comparison of mean MMPI scores would establish significant differences between successful seminary candidates and candidates who failed to persevere; the differences were expected particularly on scale 5 (Mf), scale 7 (Pt), and scale 8 (Sc).

This hypothesis is accepted in part, rejected in part. If raw scores are used without K correction, there is a significant difference at least at the .02 level of confidence in scale F, scale 4, 7, and 8 (Pd, Pt, Sc). If the conventional T-scores with K-correction are used there is a significant difference only in the scale 8 (Sc), at the .05 level of confidence, and area 7 (Pt) is so close to the .05 level as to be virtually indistinguishable.

The significant differences in area 8 and 7 indicate that the successful candidates in general are more sociable and less compulsive than the candidates who do not persevere. The raw score analysis confirms this.

- 2 a) It was hypothesized that a cutting point would be found in mean MMPI scores that would effectively distinguish between successful seminary candidates and unsuccessful candidates.

This hypothesis is rejected. A cutting point of T 60.6 designates 20% of dropouts; but falsely designates 12% of the successful candidates.

- b) It was hypothesized that an effective distinction could be found, based on the presence of two or three "clinical" area T-scales of 70 or over on profiles of candidates who dropped; also by a

combination of mean score level plus presence of elevated "clinical" areas.

This hypothesis cannot be satisfactorily verified. Half of the candidates who dropped out of training had no T-scales of 70 in any of the "clinical" areas.

The presence of three T-scales of 70 or over indicates that the candidate has only one chance in 10 of perseverance; but only 14% of those who drop out produce three T-scales of 70. Presence of two T-scales of 70 or over predicts non-perseverance 70% of the time, but 30% will continue on to priesthood. Sixty-seven of 335 drop-out candidates, or 20% produced two T-scales of 70 or over, but 22% of successful candidates did the same.

To screen out T-scales of 70 or over in the successful group would require a cutting point at the mean level of T-52.2. This is not practicable, because 90% of both successful and unsuccessful candidates are found at a higher mean level.

3. It was hypothesized that a faculty-rating scale on a five point basis of likelihood of perseverance would correlate closely with the predictive results of MMPI scores.

This hypothesis could not be satisfactorily verified. No adequate correlation could be established. The faculty rating proved correct in 84% of the successful population and 70% of the unsuccessful group; the evaluation, however, was retrospective, and must be regarded as liable to the influence of

actual knowledge of what had happened to the candidates after testing.

4. It was hypothesized that a comparison of mean Kuder scores would not provide an adequate distinction between successful and unsuccessful candidates.

This hypothesis is accepted qualifiedly.

There is a statistically significant difference in the scale of computational interest at the .05 level of confidences; practically, however, the difference of only three points in the scale of the two groups is neutralized by the very close proximity of the other scales; so that there is no realistically usable criterion to distinguish successful from unsuccessful candidate by Kuder profile.

A questionnaire on test-taking attitude was prepared; sixty-five of the subjects who had been tested volunteered to answer the questionnaire anonymously. Their reports disclosed that half of them believed that their answers to the test questions had been spontaneous, the rest did not. Half indicated that the test-taking attitude had influenced the profile in the direction of the "good seminarian"; one-third of the subjects thought the MMPI was ineffective to give a true picture of adjustment of seminarians, at least under present testing conditions. Approximately one-third expressed the view that the testing could be useful if employed by trained seminary staff to assist the candidates by spiritual direction.

Conclusions: With the 461 seminarians who were the subjects of this 10-year report on a screening program, the MMPI indicates that those who persevere are notably more sociable and less compulsive than those who drop out of training.

Moreover, in this population of 461 seminarians tested, over a 10-year period, the Kuder Preference Record does not show substantial differences of interests between successful candidates and those who fail to persevere in studies for the priesthood, except that successful candidates have manifested somewhat more interest in the computational area.

The seminarians who have taken this test battery have evaluated it at a period three to ten years later. A sampling of subjects discloses that they are somewhat divided in their evaluation of the MMPI. Half of them believe that the full MMPI given as a screening device cannot give an adequate reflection of the personality adjustment of a seminarian; a basic difficulty is the semantic problem involved in the wording of the questions. Questions which may have one significance when given routinely to patients in a mental health clinic, take on a very different meaning for sophisticated subjects when given as a screening instrument for seminary candidates.

These students believe, however, that the MMPI can be useful if employed as an aid in their spiritual direction rather than as a screening device. They would like to be told by a trained spiritual director what the tests indicate about their character.

The author of this report has been left with the feeling after years of experience with the testing program, that the MMPI is so subject to role-playing the "good seminarian", or faking good, that it must be regarded with great caution as a screening instrument or a predictive instrument in the case of seminary candidates. It can be useful to indicate emotional disturbance in a candidate, and so could help trained seminary staff to be of assistance to the candidate.

It is also likely that if the test-taking were entirely voluntary on the part of candidates, the profile would be reliably spontaneous and present an acceptably accurate picture of adjustment.

The effectiveness of a faculty rating is not clear from this present study. Verification will have to wait until the lapse of years will have shown the definitive results in the case of candidates who had not gone to the novitiate at the time of the faculty rating. It would be our prediction that this will prove correct in some 70% of all cases, including about 80% of the successful and 60% of the unsuccessful candidates. As of the present moment, the faculty rating still remains the standard practical method of distinguishing successful from unsuccessful candidates in this Religious institute; the MMPI and the Kuder Preference Record are capable of providing useful information that can greatly assist the faculty in counseling the seminarians.

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Approval Sheet

The thesis submitted by Robert Howard Sweeney, C.S.C. has been read and approved by three members of the Department of Psychology.

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

The thesis is therefore accepted in partial fulfillment of the requirements for the Degree of Master of Arts.

Date


Signature of Adviser