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The Effect of Religious Life on the MMPI Scores of Religious Brothers: A Longitudinal Study

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THE EFFECT OF RELIGIOUS LIFE ON THE MMPI
SCORES OF RELIGIOUS BROTHERS:
A LONGITUDINAL STUDY

by

Quentin Hakenewerth, S.M.

A Thesis Submitted to the Faculty of the Graduate School
of Loyola University in Partial Fulfillment of
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LIFE

Rev. Quentin Hakenwerth, S.M., was born in Old Monroe, Missouri, on January 9, 1930. He was graduated from the University of Dayton with a Bachelor of Science in Education degree in August, 1951.

He taught in two high schools in St. Louis, Missouri, from 1951 to 1956.

In September, 1956, he began his studies in philosophy and theology at the University of Fribourg in Switzerland, where he was ordained a priest on July 17, 1960. He continued studies in theology at the University of Fribourg until July, 1961.

He returned to the United States in September, 1961, and taught one year at Don Bosco High School in Milwaukee, Wisconsin.

In September, 1962, he entered the graduate school of Loyola University and completed his Master's comprehensives in May, 1964. He taught one year, 1964-1965, at St. Mary's University in San Antonio, Texas. Since August, 1965, he has been serving as Assistant to the Provincial of the Society of Mary, Province of St. Louis.

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CHAPTER I

INTRODUCTION

The past three decades have seen a burgeoning of interest in the psychological aspects of religious life. Both the natural and the supernatural aspects of religious life have always been accepted, but until the present era the emphasis has been on the supernatural. As Evoy and Christoph (1963) put it:

You have often been told that "grace builds on nature." Having said this we proceed too often, in my judgment, to disregard or bypass nature and to put our emphasis exclusively on grace. This is a rather peculiar way of acting. For if nature is the foundation supporting the superstructure of grace, then we must make a careful examination of this most important fundament. (p.4)

The emphasis during the last three decades has shifted from the supernatural to the psychological aspects of the religious life.

Psychology has recently brought to light many new factors concerning personality adjustment. Since there are personality maladjustments in religious life, one wonders if there are factors about the religious life which contribute to their appearance or continuance in religious life. Advances in psychology give us hope that many of these maladjustments might be corrected if we understand them sufficiently. Sister Marian Dolores (1963) sums up the problem well:

The experience of superiors and counselors and the results of extensive research studies indicate that in the lives of religious many psychological problems which impede spiritual growth occur, and seem not to be remedied either by medicines or by sincere and devout efforts. Sometimes the far-reaching influence of psychological factors may be overlooked, or misunderstood. No aspect or principle of human behavior can be ignored when the welfare of the total person is at stake....

It is necessary to understand methods of reducing unwholesome mental tensions and this, in turn, entails an investigation of the sources from which these undesirable mental patterns arise. (pp.11-12)

Thus interest concerning mental health and the religious life has led to many scientific investigations in recent years concerning the relationship between mental health and religious life. These investigations might be grouped into two broad categories. Details concerning the various studies will be given in the review of the literature in Chapter II. The general nature of the two categories will be mentioned at this point.

The first category of investigations includes those studies concerned with the use of psychological tests as instruments for screening candidates for religious life. It was hoped that a comparison between the test results of candidates who succeeded (remained) in religious life and the candidates who did not succeed (did not remain) in religious life would reveal some kind of characteristic personality pattern or interest pattern which would successfully distinguish between successful and unsuccessful candidates. Although most of the investigators found the tests helpful in screening, they discovered no characteristic profiles of candidates to distinguish the successful from the unsuccessful candidates.

The second category of investigations shifted from the use of psychological tests for screening to the use of these tests to determine factors responsible for personality change in religious. Factors especially studied were the personality traits characteristic of those attracted to religious life, and the effect of religious training and of the regime of religious life on personality.

The purpose of the present investigation is to continue the study of the effect of religious life on the MMPI scores of male religious. The Religious Congregation from which the subjects of this study have been drawn has routinely administered the MMPI since 1950 to all candidates before entrance into the

novitiate. Eighty religious Brothers of the Congregation, who entered the novitiate during the years 1950-59 and took the MMPI before entry, were asked to retake the MMPI in 1964. At the time of the retest, they had all been living in community life and were actively engaged in the work of the Congregation from one to ten years. This means that they were all at least one year beyond their basic religious training program, which was essentially the same for all.

The present study was designed to investigate three things:

- 1) To compare the MMPI results of the test before entry with the MMPI results of the retest to see if any significant changes in MMPI scores took place after entrance into religious life.
- 2) To divide the experimental group of eighty Brothers into five subgroups according to the length of time spent in religious life after the formal training period, and to compare the scores of these subgroups to see if any significant changes take place in MMPI scores after the formal training period is terminated. If religious life itself tends to elevate MMPI scores, those subjects who were in religious life longer should have generally higher MMPI scores.
- 3) To compare the MMPI results of those subjects obtaining unfavorable scores with their actual adjustment in daily life as judged by their superiors to see if unfavorable MMPI scores are predictive of poor performance in the chosen work of the religious Brothers.

On the basis of previous studies done in the same area, it was hypothesized:

- 1) That significant differences in MMPI scores would be found between

the test and retest results, indicating that something after entrance into religious life is accountable for a rise in MMPI scores.

2) That there would be a continuing rise in MMPI scores the longer the subject stayed in religious life, indicating that the regime of religious life itself exerts an influence on MMPI scores in an unfavorable direction after the termination of the training period.

3) That those obtaining unfavorable MMPI results would likewise be rated unfavorably by their superiors concerning their adjustment to their chosen vocation, showing that unfavorable MMPI scores are predictive of unfavorable adjustment to the chosen vocation.

There are some obvious limitations to the present study, which should be mentioned here.

1) The test and retest were done before entry into religious life and after the termination of the formal training period respectively. No testing was done during the training period itself, so that no direct comparison can be made to show the influence of formal training on the MMPI scores of the religious. Conclusions about the influence of training on MMPI scores will be indirect.

2) While the test-retest comparison is a longitudinal study, the comparison between the subgroups to see if the influence that length of time in religious life has on MMPI scores is not longitudinal. Individual personality differences will weaken the conclusions drawn from such comparisons.

3) The absence of a comparable control group makes less meaningful the findings of the present study. Without a control group of college-educated men tested with the MMPI before entrance into college and retested again after one to ten years in their chosen work, we do not know how typical of normal

groups our findings will be.

In spite of these limitations, the present study promises to be productive in the conclusions it can furnish.

CHAPTER II

REVIEW OF THE LITERATURE

The first study published concerning the mental health of seminarians as compared with other populations was by Sward (1931). He administered the "standard scales for measuring introversion and inferiority attitudes," which was designed by Heidbreder, to eighty seminarians. He compared their scores with the norms based on 1108 college students and found that the seminarians were marked by greater introversion and inferiority attitudes.

The next study was by Moore (1936) concerning the incidence and nature of personality disorders among priests and religious hospitalized in sanitoriums throughout the United States. The incidence of psychological disorders per 100,000 population which he found was as follows: priests—446; Sisters—485 (active—428; cloistered—1,034); Brothers—418; general population—595. Moore pointed out that the higher rate among the general population seemed to be due to parietic types of insanity, cases extremely rare with priests and religious. If the incidence of parietic cases were eliminated among the general population, the incidence of personality disorders among priests and religious would rise above that of the general population. This higher proportion among priests and religious seemed to be due to one of two things: either the stress and tension of religious life causes a higher incidence of maladjustment, or certain prepsychotic personalities are drawn to the quiet and seclusion of the religious life.

Kelley (1958) did a study similar to that of Moore's, but she limited it to religious sisters. She found that "although the rate of mental illness was

lower among sisters than among women generally, both in Moore's and in the present study, the discrepancy between the two rates is not as great now as at the time of the earlier study." (p. 73) The rate per 100,000 among women religious increased from 485 in Moore's study to 595 in Kelley's investigation. She likewise found that the difference which Moore found to exist between the incidence of mental disorder among cloistered and "active" religious had also decreased considerably. She does not feel that this finding negates Moore's earlier study, but she suggests that among active religious factors of stress may be contributing more to eventual breakdowns than was previously supposed. (p. 75)

The preponderance in the 1956 survey of disorders in which depression commonly occurs led to a further study by Kelly (1961) concerning the incidence of self-accusatory depression which might possibly be caused by religious life. She found through questionnaires that 61% mentioned self-accusatory depression and an additional 12% described themselves as "severely depressed." She made the following observations as a result of her study:

- 2) It may be no more than an interesting coincidence that the rates of psychosis increase as we move from the most totally absorbing and "distracting" occupations to those which leave the greatest freedom to the mind.
- 3) Certain immature or poorly instructed religious are plagued by the suspicion that every failure is a sin, and for this reason their mental disturbances themselves become a circularly reinforcing cause of depression. (p. 425)

Religious life demands a great maturity to adjust to certain moral stresses. The very organic structure of religious life can cause failure or inadequacy, even in morally neutral matters to be interpreted to be a matter of moral guilt, and repeated failure or experience of inability to meet standards intensifies depression. (p. 425)

A third study done on hospitalized subjects was by McAllister and Vanderveldt (1961). They did a comparative study of 100 Catholic priests consecutively discharged from a private psychiatric hospital from 1952-1959 and 100 lay male patients discharged from the same hospital to find factors common to these groups and factors differentiating sub-groups. For the same reasons, partial comparisons were made with 100 Catholic seminarians approaching ordination. It might be helpful to include Table 4 of the authors (p. 83):

INCIDENCE OF SYMPTOMS

Symptoms	Clergy	Lay
Alcohol	32	10
Anxiety	30	21
Delusions-hall.	7	21
Depression	7	36
Drugs	3	1
Inadequacy	6	3
Obs-compulsive	4	3
Senility	1	3
Sex	10	2
Total	100	100

McAllister and Vanderveldt found that 77% of the hospitalized clergy had serious emotional problems already in the seminary. Alcoholic symptoms were the only one's that did not show up in most cases before ordination. "Problems in the sexual sphere were present in nine of ten cases prior to ordination, suggesting that neither the vow of celibacy nor the priestly function created this psychic conflict. It was present prior to ordination and probably represents a psychosexual fixation rather than a regressive phenomenon." (p. 85)

This would seem to indicate that an efficient screening program could detect the majority of these cases before ordination.

In comparing the 100 priests with the lay patients and the 100 seminarians, the authors found a greater number of clergy with lower socioeconomic backgrounds. This may represent a national economic trend to an expanding middle class society from which the larger number of seminarians come, or it might suggest that "the clergy from lower socioeconomic strata have a more difficult time adjusting to a vocation which places them in the middle or upper class of our society." (p. 82) Two other observations are made relating to factors which might influence psychological adjustment:

The mother was reported to be the dominant figure in the home of 91 percent of the clergy patients. This is significantly higher than in either the lay or the seminary group. This maternal dominance may create some distortion in the priestly role and in the relationship to authority figures, and act as a factor in psychiatric illness among the clergy.

It is seen that a significantly greater number of clergy patients had parents with psychiatric symptoms than did the lay patient group.

A final finding worth noting here is that there were fifteen sociopaths among the clergy group studied, a much higher number than among the lay group. The authors suggest that seminary training and the clerical life lend themselves easily to a lack of duration and depth in interpersonal relationships, influencing this figure somewhat. They also suggest that sociopaths are perhaps attracted to the challenge of the clerical life, since they have a need to prove themselves.

Because of the serious nature of the implications of Moore's study, a new line of investigation developed. There was a rapid growth of interest in evaluating the psychological fitness of candidates for the priesthood and religious life. McCarthy (1942) set up a study to evaluate some of the more common and

successful personality tests for the purpose of screening candidates. He administered the Bell Adjustment Inventory, the Bernreuter Personality Inventory, and the Allport-Vernon Study of Values to eighty-five major seminarians and 144 minor seminarians. He likewise constructed a Faculty Rating Scale on which three faculty members rated each of the 229 seminarians. He identified a "g" factor using Spearman's method of factor analysis. This "g" factor showed that the average seminarian is more submissive, introverted, and experienced inferiority feelings more than the average student according to the Bell Adjustment Inventory and the Bernreuter Personality Inventory. On the Allport-Vernon Study of Values the seminarian scores significantly higher in religious interests. The Faculty Rating Scale produced a second "g" factor "of general fitness for continuance in seminary life." (p. 38) This was the beginning of a search for a typical personality of the successful seminarian or religious.

Peters (1942) used the same battery of tests and the same statistical techniques in studying the personality traits of women candidates for religious life. She isolated three "g" factors, the first of which correlated low and negatively with the second and third, while the second and third correlated positively and comparatively high. Factor I consisted of sulkiness, anxiety, depression and irritability, Factor II of sense of judgment, capacity to adjust, emotional control and punctuality, and Factor III of leadership, sociability, dominance and social adjustment.

The studies of McCarthy and Peters identified some traits among existing candidates to the priesthood and religious life, but did not determine whether these traits were predictive of success in religious life, nor whether or not these traits were caused by the seminary or convent regime. Consequently Burke

(1947) did a study on minor seminarians to establish means of detecting probably seminary drop-outs as early as possible by use of psychological measures. He administered a battery of twelve tests and two questionnaires (including a revised and expanded version of McCarthy's Faculty Rating Scale) to 191 first year and 91 fourth year high school minor seminarians. Intercorrelations and factor analysis indicated no common factor at work in these measures. Burke concluded that "none of the measures in this study and no combinations of measures enable us to pick out with any adequate certainty a seminarian likely to be rated as good material for the priesthood." (p. 43)

Kimber (1947) likewise found some traits characteristic of Bible Institute students. He administered the California Test of Personality, the Minnesota Personality scale, and the Kuder Preference Record to a group of students at one of the nation's Bible Institutes. The author felt that "in the light of the rigid selectivity of the student body and the theological position and discipline in effect, it was regarded as important to ascertain whether objective measurement would reflect deviations in personality traits or in interests." (p. 233) He found that this group had high social standards, a high sense of personal worth, but to have less freedom from nervous symptoms than the average person. A low score on community relations would correspond to the trait of social withdrawal noticed by other investigators.

Bier (1948) brought a new personality measure -- the MMPI -- into the search for a psychological instrument predictive of the success or the failure of candidates for the priesthood or the religious life. He stated:

If the MMPI at all lives up to the diagnostic promise which it gives, the profiles of those who leave the seminary because of inability to make the psychological adjustment necessary will be distinguishably different from the profiles of those who make a satisfactory adjustment, remain, and are

ordained to the priesthood. (1958, p. 608)

Pier first wished to find out if the general norms for the MMPI were valid for adjustment to the specialized life of a seminarian. He compared the MMPI scores of five college groups: seminary, medical, law, dental, and liberal arts. He found that all five groups scored significantly higher than the normative group on the MMPI. But in comparing the groups among themselves he found that "the seminary group manifests the same deviant tendencies as the general population of the study, though in a more marked degree than the other groups." (1948, p. 36) He then compared the extremes of the seminary group and found that the well adjusted seminarian was more homogenous with the well-adjusted medical, dental, law or college student than he was with the poorly adjusted seminarian. He concluded that the MMPI could some day serve as a predictive psychological measure for seminarians if: 1) the items on the MMPI unsuitable for seminarians were modified or replaced and 2) a certain period of time were allowed for the MMPI records to accumulate and validate themselves.

Wauck (1956) studied the MMPI as a screening instrument as compared to the faculty ratings on McCarthy's Faculty Rating Scale. He administered the MMPI to 206 seminarians and had faculty members rate the seminarians. He did not find the MMPI scores very helpful as selective criteria. Only the D and Mf scales were significant at the .05 level of confidence between the 31 rated lowest by the faculty and the 29 rated highest. The Pt scale approached the .10 level of confidence. The higher scores favored the best rated. Wauck concluded that seminary life, when taken seriously, tends to increase temporary or situational anxiety. (p. 56) He found that the typical "successful" seminarian has a high triad of D, Mf, Pt with a peak on Mf.

Rice (1958) in this same line of study compared the scores of 73 seminar-

ians with the Minnesota normative group and with the Bier heterogeneous group of seminarians. He found significant differences between the performance of his experimental group and the Minnesota Male Normal Group at the .01 level of confidence on scales 3, 4, 5, 6, 8, and 9; at the .05 level on scales 2 and 7. But he also found significant differences between the performance of his experimental group and the performance of the Bier group at the .01 level on scales 5 and 6; at the .05 level on scales 3 and 4.

The investigator advanced the suggestion that his results indicate the need for religious orders and seminaries to construct their own individual norms if they intend to use the MMPI as a screening device for candidates, since this study indicates that there is no one identifiable "seminarian profile" for the MMPI. (p. 73-74)

Concerning the measurement of psychological adjustment by the MMPI Rice says:

Nor can any statement about the degree of adjustment to religious or seminary or priestly life be made about any individual member of this group; a study using some external criterion of vocational adjustment would help to answer that question. (p. 72)

Gardner (1964) examined 90 minor seminarians in an attempt "to determine whether or not the MMPI ratings of adjustment and maladjustment would be supported by projective test results", namely, the Rorschach. Since the MMPI has been criticized because it is suspected of being influenced by social and vocational variables, Gardner reasoned that a projective test would largely escape these influences. Therefore, if the Rorschach would support MMPI results, the latter could be taken at face value and the Rorschach could effectively be added to the test battery used to screen candidates for psychopathology. The results of his study might be summarized as follows:

Rechecking the MMPI scores of the seminarians against their RPRS (Rorschach Prognostic Rating Scales -- Klopfer, 1951) scores it was found that there were only 13 cases out of 90 in which the blind ratings were at variance with the MMPI results. These results indicate not only that the RPRS performs exceptionally well as an actuarial instrument, but also

that MMPI results in the seminary population can probably be accepted at face value in all but a very few cases." (p. 107-108)

Godfrey (1955) was one of the first to investigate the predictive value of the MMPI regarding the perseverance and success of candidates to the Brotherhood. One hundred and thirty-nine candidates over a period of five years (1950-1954) were given the MMPI upon entrance into the novitiate. Ninety-one of the candidates persevered until June, 1955, and 58 left during the five year period. Godfrey used t-tests for significant differences in the means of the two groups as the distinguishing measure. "The mean scores of those who did not persevere was significantly higher on the Pd and Ma scales than the mean scores of those who did persevere." (p. 30) The success of the candidates who persevered was measured by a faculty rating scale used in the Order. "The distribution of the group which persevered, divided according to their degree of success, on the MMPI scales were significantly different from chance on the Ma scale only." (p. 30) Godfrey concluded:

The Pd and Ma scales do have predictive value regarding the likelihood of perseverance of a candidate for religious life. A relatively high score on these two scales would indicate a probability of defection.

This investigation seemed to indicate some predictive value for the Ma scale regarding the degree of success to be achieved in religious life, but further investigation would be needed to clarify the nature of this relationship. (p. 30)

The population included in Brother Godfrey's study will form part of the population of the present investigation.

Herr (1962) set up a study similar to that of Godfrey's, but with more statistical refinement. Fifty diocesan seminarians were given a battery of tests "to learn whether or not the scores made on an intelligence and personality test might be useful in selecting the most suitable candidates for the priesthood." (p. 102) Faculty ratings were used as one criteria of effective-

ness of the tests as predictors. Of the 50 tested, 10 left during the course of the year, the other 40 stayed a length of time ranging from one to six years. Those who stayed were significantly lower on the Pd and Pt scales at the .001 and .03 levels respectively as well as on the Sc scale at the .05 level. However, the N is small and the length of time of perseverance only one year for some. Another study done by Herr the following year in the same way had 45 who stayed and 7 who left. Significant differences here were on the Pt and Sc scales only. These results do not coincide completely with those of Godfrey. Successful candidates in Herr's first group were significantly lower than unsuccessful candidates on the Pd scale and the successful candidates in Herr's first and second group were significantly lower on the Pt and Sc scales. But in Godfrey's group the successful candidates were significantly lower than the unsuccessful candidates on the Ma and Pd scales, but not on the Pt and Sc as were Herr's successful candidates. This writer could find no evident reason for the differences. Perhaps the fact that the groups were relatively small would account for the statistical differences. A larger sampling might prove them to be more homogeneous. Another possibility might be that subjects with higher Pt and Sc fit more easily into the structure of religious life as lived by Godfrey's group than that lived by Herr's group.

Along the same lines Weisgerber (1962) studied the results of 211 seminarians of a clerical order who were evaluated clinically by a psychologist and classified as satisfactory, doubtful or unsatisfactory. The judgment was based on the MMPI scores (Bier's 1949 revision), item analysis, teachers' comments and other information. Some conclusions arrived at were the following:

Of those whom the psychologist declared satisfactory, about 70 percent persevered; of those he declared doubtful or unsatisfactory, 55 percent. The difference was significant only at the .05 level. The screening pro-

cedure shows slight improvement over actuarial expectancy in predicting perseverance; a fair but not impressive improvement in predicting who will leave. (p. 128)

Sweeney (1964) used the same approach in comparing the MMPI and Kuder profiles of a group of 126 successful candidates and a group of 335 candidates who dropped out of training before ordination. These were seminarians of a clerical order. The tests were administered while the seminarians were in the year of seminary studies that precedes their admission to noviceship. The author found that if the conventional T-scores with K-correction are used, there is a significant difference only in Sc at the .05 level of confidence and Pt so close to the .05 level as to be virtually indistinguishable. The author concludes that these results indicate that those who persevere are notably more sociable and less compulsive than those who drop out of training. Sweeney likewise tried to establish a cutting point in mean MMPI scores that would effectively distinguish between successful and unsuccessful candidates. He could not establish such a cutting point. A mean of T-60.6 designated 20% of the drop-outs, but falsely designated 12% of the successful candidates. The author also examined the possibility of an effective distinction based on the presence of two or three clinical area T-scales of 70 or over on profiles of candidates who dropped. This was not successful either, but it does point out a tendency. Only 10% of the candidates with three T-scores over 70 persevere, although only 14% of those who drop out have three such scores. Thirty percent of those who have two T-scores over 70 will continue to the priesthood. This is little better than actuarial prediction, since 27% of the 461 candidates persevered. Concerning the MMPI as a predictive instrument the author has this to say:

The author of this report has been left with the feeling that after years of experience with the testing program, 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. (p. 95)

Kobler (1964) collated empirical data from a variety of different studies, most of them done at Loyola University, Chicago. Besides treating data on the Kuder preference Record and the Mooney Check List, he collated the results of eight different studies using the MMPI on a total of 1152 religious. These were contrasted with the MMPI test results of 5035 college students. After careful comparison of results, he offered the following preliminary operating principles for the use of these tests for screening applicants for the religious life.

If the applicant has a mean score of 58 $\frac{1}{2}$ on the MMPI scales including one or more scores at or above 70, and high scores especially on the Pt and Sc scales; and if the Kuder profiles are either exaggerated in the indicated direction or if they are flattened, indicating no pronounced interests; and if the Mooney for men shows 20 or more problems checked, with 10 or more of most concern; then the applicant should be further clinically evaluated regarding suitability for religious life. (p. 166-167)

Significant scores are likely to be found on the Pt and Sc scales, although extreme scores not characteristic of a group are likely to be more significant. Apparently a considerable amount of deviation, as revealed by the tests, is tolerable in an applicant for religious life. (p. 169)

Kobler brings up an issue still to be clarified: "Do we want to use the MMPI or related tests to identify the seriously disturbed or to select the most promising candidates? ... In my judgment, what we want to be able to do is to make a clinical contribution to the screening process and not one of vocational assessment." (p. 169) This seems logical since the MMPI was constructed for identifying personality disturbances, not for discovering religious vocations. The contribution of these tests, especially the MMPI, in a screening program was highlighted in Kobler's study by the fact that staff members of the male religious institutes attempted to rate the emotional adjustment of their religious. No relation was found between staff evaluations and the test results.

Although psychological tests do not seem to predict very well which candidates will continue in training and which will withdraw, they perhaps could be predictive of success in terms of adjustment of those who do continue. Some recent studies have taken this approach. Harrower (1964) used a battery of tests on young men at the beginning of their training for the ministry. Although the MMPI was not among the tests she used, the study ought to be mentioned for its own importance. The author invented a scoring method by which the "personality endowment" (or mentalhealth potential) is shown by the tests.

What conclusions can be drawn from this expanded study? It would appear that concepts of personality endowment are meaningful when excellence in performance in the ministry is compared with the psychological endowment at the time of testing. Of the 34 ministers endorsed unequivocally by all 4 judges, 28 came from the well-endowed positions on the scale, while 6 came from the impoverished or disorganized quadrants.

Conversely, of those who have been assessed as unsatisfactory in their ministerial duties, 15 are in the disorganized or impoverished quadrant, while 5 come from the balanced or well-endowed areas. (p. 58)

Her evaluations were not predictive of perseverance, but were rather successful in predicting adjustment in the ministry.

Parallel with the studies investigating the MMPI as a psychological measure of success in the priesthood or religious life was a series of studies inquiring into the reasons for the unfavorable deviations of priests and religious on the MMPI scales. Mastej (1954) did a comparative study of the personality adjustment of religious women according to the length of time spent in religious life from candidacy to twenty years of profession. She found that the personality pattern did not change, but in general the scores rose with increase in age. She corrected the scores for age by analysis of covariance and found the adjustment to be too small to account for the rising scores. She then tested for the effect of formal education and found the scores relatively unaffected by this

factor within the groups and, therefore, likewise between groups. She had a good sampling consisting of five distinct groups of religious women belonging to various religious congregations engaged in teaching and one group of candidates aspiring to the same form of life. Each of the six groups comprised 100 subjects. The following are among the conclusions she drew from her study:

- a. The religious women of this study manifested distinct differences in psychological adjustment during each of the successive periods of religious formation. The differences were in the direction of increasing deviant scores on all the scales of the Modified Form of the MMPI, except the Hy scale.
- b. The significant differences on the Hs, Mf, Sc, and Ma scales increased progressively with the time in religions.
- c. The number of significant differences for each successive period in religious life was in direct proportion to the increase of time spent in religion.
- d. ...the Pt and Ma scaled consistently differentiat/ed/the five religious groups from the candidates.
-
- f. The one scale which did not differentiate between the candidates and the religious was the Pd scale.
- g. Significant differences on the Pa scale were evident only with the novices and the junior professed groups. (p. 193)

Mastefj likewise found that the means of the total religious group compared with the candidate group means showed differences significant at the .01 level on the Hs, D, Pt, Sc, and Ma scales.

Murray (1957) did a doctoral dissertation on the effect of seminary training on personality and interest inventory scores. He administered the MMPI (Bier's 1955 modified version), and Guilford-Zimmerman Temperament Scale, and the Strong Vocational Interest Blank to 100 college men, 100 minor seminarians, 100 major seminarians, and 100 priests ordained from two to ten years.

The MMPI scores of Murray's study showed the minor seminarians more elevated than the college students on eight scales, at a significant level on four scales. The major seminarians scored higher than both the minor seminarians

and the college student on all scales except 4 and 9 (Pd, Ma). They were significantly higher on eight scales, and significantly lower than the college students on scale 9 (Ma). The priests scored higher than the college students on seven scales, but only on two significantly higher.

Murray concludes from these results that the seminary situation tends to elevate the scores, but the condition after ordination relieves the pressure somewhat and lowers the scores in general. He also concluded that typical personality characteristics of those attracted to the priesthood and the training itself were contributing factors.

Three years after Mastěj's study, Sandra (1957) followed with a similar comparative study on religious women. She included five groups in her study: 1) 150 junior professed belonging to 17 active religious institutes devoted primarily to teaching; 2) 150 novices for the same religious institutes; 3) 150 candidates within three months of their entrance into the same institutes; 4) 150 Catholic students attending eight different colleges for women; 5) 150 Protestant students attending four different Protestant schools for women. She selected this population for her study because from preceding works three factors were suggested as accounting for the more deviant scores of religious women: 1) training in religious life; 2) personality traits typical of those attracted to religious life; 3) general Catholic background.

Sandra found that the novices provided the most deviant scores of the five groups. Contrary to the findings of Mastěj, the junior religious had less deviant scores than the novices although they were in religious life for a longer period of time. She concluded, as did Wauck (1956) that there is a situational or temporary deviation brought about by the new mode of life during the train-

ing period. She did not see this deviation as an indication of psychological maladjustment.

An important contribution of the present research was the demonstration of the similarity of the personality profiles of religious women with those of college-educated women in general... There would seem to be fundamentally no more reason for interpreting the personality profiles of religious women as indicative of poorer psychological adjustment than there would be for so interpreting those of college samples in general. (p. 2)

While we are reviewing works concerning religious women, let us skip ahead chronologically to a very recent work by Reindl (1965). She likewise did a comparative study of personality patterns of Catholic sisters at five different levels of training. She was particularly interested in the direction and change in personality patterns as the length of time in religious life increases. She used five groups: 1) postulants (average 6 months in religious life); 2) novices (average 1½ years in religious life); 3) junior professed still in training (average 2½ years in religion); 4) perpetual professed (average 8 ½ years in religion); 5) senior sisters (average 19 years in religion). In agreement with Rice (1958) she found no typical personality pattern which would distinguish the groups. She also found that the "evidences of personality deviation and emotional instability did not increase as length of time spent in the religious life increased." (p. 46) Contrary to Sandra's findings, the novices had less deviant scores than the junior professed. Reindl concluded that "there appear to be factors other than the necessity for making far-reaching decisions involved in increasing personality deviation from the normal pattern." (p. 46) We are left with the question of just what these factors are.

Murray (1957) was the first to do a study of the influence of training to the priesthood on personality test results. In effect he had seven groups: a group of college students, diocesan minor seminarians, minor seminarians of a

clerical order, diocesan major seminarians, major seminarians of a clerical order, diocesan priests and priests of a clerical order. He found that four MMPI scales showed significant differences at the .01 level between collegians and combined minor seminarians (D, Mf, Pt, Sc). Murray feels that much of this might be due to personality traits of those attracted to the priesthood, since training at this stage has been minimal. Combined group of major seminarians contrasted with the college group show four additional significant differences (Hs, Hy, Ma at the .01 level, and Pa at the .05 level). This change seems to be due to priesthood training. This finding is reinforced by the discovery that there are no significant differences between scores of diocesan minor and major seminarians, whereas there are such differences between religious minor and major seminarians. These latter have an additional two years of novitiate training between minor and major seminary which diocesan seminaries do not have.

A finding which holds much interest for the present investigation was that the increasing scores through seminary training diminished during the first decade of the priesthood. It seems that the seminary atmosphere, above and beyond the influence of training, affects the MMPI scores. However, there is another consideration:

The two total groups of priests, diocesan and religious, were found significantly different on four scales. When two subsamples of priests, diocesan and religious, are matched on the type of priestly function performed, all variables except training for the priesthood are held constant. The religious priests receive two extra years of training in their novitiate... The significant differences between the subsamples of parish priests are increased in number to six. Increased training for the priesthood is related once again to a quantitative increase in significant differences. (p. 88)

The writer wonders whether the high MMPI results might not be a function of the kind of orientation received in training rather than the amount of training

alone.

Gorman (1961) and McDonagh (1961) did companion thesis as a descriptive study of adjustment and interest patterns of seminarians. The two studies combined formed a comparative study of the influence of seminary training on MMPI and Kuder scores. Gorman studied a fourth year group of minor seminarians and McDonagh studied a fifth year group (first year college) in the same seminary. Gorman has 188 fourth year seminarians, McDonagh has 135 fifth year seminarians. This allowed a comparison between the two groups concerning interest and adjustment. Gorman summarizes the MMPI comparison of the groups as follows:

Fourth year and fifth year students of this same seminary, having been described by similar means, prove to be a homogenous population. On the index of adjustment (MMPI), the older class scored higher than the younger class on every scale. Age, greater realization of their vocation and more serious direction of their lives might partially explain this difference. Their profiles, however, are similar. At the .05 level of confidence the difference between these two groups proved significant for scales Hs, D, Hy, Pa, and Pt. (p.99)

These results would seem to agree with Murray's insistence on the influence of training on MMPI scores. It was admitted by several previous investigators that what was needed were longitudinal studies rather than comparative studies using different subjects at each level of development. Garrity (1965) did such a longitudinal study "to investigate the magnitude and direction of change in personality and general ability during various phases of sister formation." (p. 3) She examined the differential effects of sister formation during a three-year period and a five-year period by a test-retest administration of the MMPI and the ACE Psychological Examination. Twenty of the sisters in the total group of 43 were completing their fifth year of training (Juniors) and the other 23 were completing their third year (Novices). An examination of person-

ality change as measured by the MMPI showed no significant change in personality traits. There were no significant changes in mean scores at the .05 level of confidence for either group but the general trend was toward higher scores following sister formation experience. The author suggests that the unexpected stability in personality traits might be the result of persons coming to the sister formation already having achieved a specific, mature identity which is unaltered with a change of circumstances. (p. 73) This was the only study which the writer found in which training or time in religious life did not result in significant changes in MMPI scores of the religious.

Murtaugh (1965) did a longitudinal study on a group of 90 diocesan priests ordained during the years 1953-55, who retook the MMPI and Kuder in 1964. He likewise compared the results of these priests with the 56 others of the same ordination groups who did not respond to his request for participation in this study, as well as 55 seminarians who dropped out before ordination. The author's primary interest was to investigate the usefulness and reliability of the MMPI and KPR as predictors of performance of candidates for the diocesan priesthood. He found that the "coefficients of correlation and the 't' values for the test-retest of the MMPI failed to support the reliability of that instrument as predictor of performance." (p. 60) The MMPI scales likewise failed to show discrimination between successful and non-successful candidates.

The findings that particularly interest the present writer were the differences in the test-retest MMPI scales. The retest scales were significantly higher at the .01 level of confidence on the K, Hy, and Ma scales, and significantly lower at the .01 level on F and at the .05 level on Pt. Mf showed a slight decrease and all the remaining scales a slight increase. Murtaugh

Interpreted the results as follows:

The low but significant changes on the Pt (psychasthenia), Ma (hypomania), and Hy (hysteria) scales bear witness to the environmental difference between seminary life and parochial life. The confinement and the demand for excellence in the seminary promotes meticulousness, conscientiousness and sensitivity to emotional involvement; whereas, parochial life promotes greater self-expression and social freedom. The increased preoccupation with bodily complaints revealed on the retest supports the observable fact that many diocesan priests suffer heart and gastric illnesses seemingly accountable more to external frustration rather than to excessive self introspection or compulsive tendencies. (p. 62)

It is interesting to note that our findings indicate that these same self-centered seminarians later did adapt to the environmental demands of the diocesan priesthood in that their social service and persuasive abilities increased. While their so-called paranoid tendencies as seminarians remained fairly constant, these tendencies did not inhibit their priestly social behavior. (p. 64)

Summary and Evaluation

Hospitalized Incidences

The studies of Moore (1936), Kelly (1958, 1961), and McAllister and Vanderveldt (1961) on the incidence of hospitalization of priests and religious due to psychological disorders found a lower incidence per 100,000 population among priests and religious than among the general population, but a greater incidence of certain types of disorders. The difference in incidence between lay and religious populations according to Peters seems to be disappearing in the sense that it is increasing at a more rapid rate among religious. A greater incidence of schizophrenic and sociopathic personality disturbances was found among priests and religious, while psychotic and psychoneurotic depressive reactions were more frequent among the lay population. Although depression was a common element in the population Kelly studied, it was not the primary symptom. These findings suggest that religious life might cause greater tension and consequently facilitate onset of serious disorders, or that certain prepsychotic personalities are attracted to religious life. Since 77% of the hospitalized clergy studied by McAllister and Vanderveldt had serious emotional problems already in the seminary (1961, p. 84), it was suggested by the authors that adequate screening could detect these cases before ordination. Testing, in this case, should continue through the seminary.

Comment

The study of incidence of psychological disorders among priests and religious can and has indicated some valuable areas of investigation concerning screening programs for candidates and the effects of religious life on religious

men and women. However, the increase of incidence of hospitalization among religious in recent years could be due to something other than a basic increase of incidence among religious. Religious superiors have a good deal to say in deciding the matter of hospitalization. In recent years, religious superiors are much more accepting of the fact of psychological difficulties among religious and sometimes even command subjects to seek help. This might cause a rise of hospitalized incidence without the incidence of psychological problems among religious actually increasing. Nevertheless, the greater incidence among religious in certain areas and among cloistered nuns indicates need for study on the effects of religious life on its members.

Search for typical personality

Several studies could be grouped together as a search for a personality typical of the successful seminarian or religious (McCarthy, 1942; Peters, 1942; Burke, 1947; Kimber, 1947). In general these studies found the seminarian or religious to be more submissive, socially more withdrawn, and in general less free from nervous symptoms than the normative groups of the various psychological measures used. After the discovery of certain traits typical of seminarians, Burke attempted to establish a means of detecting probable seminary drop-outs early. He found that none of the twelve tests and two questionnaires he used, or any combination of them could pick out with adequate certainty the seminary drop-out.

Comment

Identification of certain traits existing among candidates for the priesthood or religious life is helpful in learning what kind of personality is found

in these states. It still leaves open, however, the question of whether these traits are brought to religious life or developed after coming to religious life, or both, i.e. existing before entry but precipitated by religious life. The studies referred to above did much to encourage further investigation along this line with new psychological measures. The measures used up to 1948 do not seem to be discriminatory enough.

MMPI as a Measure of Psychological Adjustment

Bier (1948) and Rice (1958) found seminary groups to have generally more elevated scores on the MMPI than other comparable college groups, but they did not feel that this was very indicative of functional adjustment to religious vocation. This would suggest that the MMPI scores of seminarians or religious candidates could not be taken at face value. However, Gardner (1964) found that the Rorschach results, which apparently are not influenced by social and vocational variables as are the MMPI scores, supported the findings of the MMPI. Consequently, Gardner feels that the MMPI scores are a good measure of psychological adjustment to vocation.

Comment

The MMPI is a Measure of certain personality characteristics which we would expect to influence a person's behavior. However, it would be a grave error to take MMPI scores as an indication of actual overt behavior. It is quite possible that the MMPI can accurately measure personality characteristics without accurately predicting the behavioral adjustment of the subject. Therefore, high or unfavorable MMPI scores in seminarians does not automatically imply unfavorable adjustment in the priesthood or religious life. This would

have to be determined by comparing MMPI results with actual adjustment.

MMPI as a Predictor of Success

Godfrey (1955), Waack (1956), Herr (1962), Weisgerber (1962), and Sweeney (1964) all compared the MMPI scores of successful candidates with those who dropped out of seminary or religious training. In general the predictive success of the MMPI was only a slight improvement over actuarial expectancy. As a general conclusion of all the studies cited in this paragraph, it can be said that high scores on Pd, Pt, Sc, and Ma scales militate against perseverance, but do not indicate with adequate certainty that candidates with high scores on these scales will not be successful. On the other hand, many candidates leave who do not have elevated scores on any of these scales.

Comment

It would seem that the MMPI is of almost no value in predicting those who will persevere in their vocation and of only slight value in predicting those who will leave. These findings would seem to indicate a greater promise for the MMPI as a predictor of adjustment in one's vocation than perseverance in it. Perseverance is no guarantee for good adjustment, just as non-perseverance is no indication of lack of psychological adjustment. It is quite conceivable that the role of a priest or religious as well as the security of the religious regime might well be a factor in promoting the perseverance of poorly adjusted people in religious life. Kobler (1964) and Harrower (1964) both stress the use of psychological tests to identify disturbed candidates rather than to predict perseverance in a chosen vocation.

Cause of Unfavorable MMPI Scores Among Religious Women

Many studies sought to isolate factors accountable for unfavorable changes in MMPI scores. The studies done on religious women give the most dissonant results. Mastoj (1954) found that the Hs, Mf, Sc, and Ma scores increased progressively according to the amount of time spent in religious life. Sandra (1957) found the novices to have higher scores than junior sisters. She thought the increase was a situational element due to the necessity of making far-reaching decisions at certain times in religious life. Reindl (1965) found an increase during training, but not after it as did Mastoj. And Garrity (1965) found no significant change during training at all, although there was a trend toward higher scores.

Comment

Naturally one wonders why the very different findings in MMPI scores changes during the years of religious life. One factor that might account for some of the differences could be the fact that these studies are not longitudinal studies but simple comparative studies. People engaged in the work of training seminarians or religious candidates agree that groups differ from each other from year to year, sometimes quite radically. This could account for some of the inconsistent results since different groups are used for every comparison. Longitudinal studies would possibly produce more consistent and valid results.

Causes for Unfavorable MMPI Scores Among Religious Men

Murray (1957) found that MMPI scores increased according to the amount of training received. Gorman (1961) and McDonagh (1961) found that MMPI scores rise from fourth to fifth year minor seminarians, which seems to corroborate

Murray's findings. Murray also found that parish priests of religious orders were significantly higher on the Pt and Sc scales than were the diocesan parish priests. He attributed this difference to the two extra years of religious training received by the order priests. Murtaugh (1965) did a longitudinal study on diocesan priests and found that the priests scored significantly higher on the Hy and Ma and significantly lower on the Pt scale. He reasoned that the change was due to environmental differences in seminary and parish life.

Comment

As with religious women, the studies done on religious men show higher MMPI scores after entry into the seminary or religious life. The three studies just cited seem to indicate that the training period has the greatest influence in determining this rise. It seems possible that the difference which Murray found between the diocesan parish priests and the order parish priests might be due to something other than the additional training. This writer suspects that the regular religious life followed by the order priests might tend to maintain higher MMPI scores rather than the result of the amount of training they received. The environmental differences between seminary and parish life as described by Murtaugh would be somewhat minimized by the internal structured atmosphere of a religious community. The present study will compare the scores of Brothers, who receive less formal religious training than diocesan priests, with the scores of the diocesan priests of both Murray and Murtaugh. If the training makes the difference, the diocesan priests should have higher scores. If the orientation of religious life makes the difference, the Brothers should have the higher scores. Comparison of the experimental group of this study with Murtaugh's group should prove most valuable since both studies are longitudinal.

CHAPTER III

EXPERIMENTAL PROCEDURE

The present investigation is a longitudinal study of the MMPI scores obtained by religious men in relation to the length of time spent in religious life. In reviewing past studies in this area in Chapter II, the factors accounting for the more deviant scores obtained by most groups of religious and priests in comparison to other normative groups seem to reduce themselves to three: 1) the personality traits typical of those attracted to religious life; 2) the amount of training received in religious life; and 3) the regime of the religious life itself, which seems to bring about more deviant scores in proportion to the length of time spent in religious life. The purpose of this study is to examine the last of these three possibilities, namely, does the amount of time spent in religious life of itself produce more deviant scores on the MMPI?

Subjects

The subjects partaking in the present study are members of a male religious order composed of priests and brothers, devoted principally to education at the present time. As is explained below (p. 33), the basic religious training of both priest and brother candidates is the same. Those who become priests go into theological training only after several years of teaching. Because the educational or training factor was to be held constant in this study, no seminarians or priests were included. Only religious Brothers form the subjects for this investigation. All subjects were voluntary (cf. p. 36).

During the years 1950-1959, 272 candidates entered the novitiate of the order from which the subjects were drawn. Of these 272, 133 persevered up to the fall of 1964 when the MMPI was readministered for the present study. Of the 133 who persevered, 53 were excluded from the study for the following reasons: 21 were in the seminary preparing for the priesthood or were already ordained (these were excluded because of the theological training which the Brothers did not have); 20 were assigned to establishments outside the United States (these were excluded because of greatly varying environments in which the subjects worked); 10 did not wish to participate in the study; and 2 responded too late to be included. This reduces the number of the present study to $N = 80$.

The basic religious training for all 80 subjects was essentially the same: one year of canonical novitiate training at the end of which they pronounced temporary vows, followed by three years of scholasticate or college during which they attained a bachelor's degree in some academic field. Exceptions to this pattern of training were 22 who were in the postulate (high school) of the order before entering the novitiate. The mean scores of this group was compared to the group entering the novitiate directly to see if the postulate training affected the MMPI scores. Results are given in Table 1.

Only the L scale showed a significant difference between the mean scores of the two groups, which would indicate a somewhat greater tendency to cover up faults on the part of the postulate-trained candidates. The general tendency of the scores of those who were in the postulate is to be higher than the scores of those who came into the order directly from the world, an average mean score of 56.58 compared with 55.62. It seems that the training at the postulate level

already has some effect on the elevation of MMPI scores. It is interesting to note that in comparing the retest scores of these same two subgroups, the results are almost reversed. The postulate group has a mean score average of 56.78 compared with a 58.58 of the non-postulate group. The postulate training seems to have raised the MMPI scores earlier for the one group, but the scores do not then continue to rise proportionately throughout the time of the training period.

The standard deviations of the postulate group shows them to be in general somewhat more homogenous than the non-postulants. The training seems to have a tendency to make the candidates more alike.

Although these differences in the postulant and the non-postulant group show interesting tendencies, the differences are not statistically significant. Therefore, we can treat the entire group as a single population in the present study.

Age is a factor in the elevation of MMPI scores (Hathaway and McKinley, 1942; Bier, 1956). M_astey thought that chronological age might be sufficient to account for the increase in score deviations. She corrected for age on each score by analysis of covariance and concluded that "it is evident from the differences between the experimental and the adjusted means that the amount of this adjustment was not great... For the total experimental sample the average correction was 0.56" (1954, p. 122-123). On the basis of her study, it seems reasonable to disregard chronological age as a factor in the rise of scores on the MMPI in this study.

The total group was divided into five subgroups according to date of entrance, and the groups were compared for the age factor. It was found that

Table 1
Pre-Novitiate MMPI Mean Scores and T-Ratios
for Postulants and Non-Postulants

Scale	Postulants (N=22)		Non-Postulants (N=58)		t-ratio
	Mean	Standard deviation	Mean	Standard deviation	
L	53.22	7.48	48.81	6.12	2.63*
F	51.45	3.94	50.60	4.88	.72
K	58.54	5.78	56.75	8.31	.91
Ha	56.27	6.51	52.70	8.13	1.82
D	54.95	7.55	53.58	10.46	.55
Hy	56.54	6.06	56.84	7.26	.16
Pd	57.31	10.00	57.08	9.30	.09
Mf	58.36	8.96	60.94	9.28	1.10
Pa	56.18	7.79	55.12	7.71	.54
Pt	60.86	9.17	60.63	11.07	.08
Sc	60.00	7.31	57.98	10.09	.84
Ma	56.08	7.91	56.43	9.61	.15
Avg.	56.58		55.62		

* Significant at the .05 level of confidence.

the subgroups were homogeneous enough in regard to age to warrant using these same subgroups to compare MMPI test results according to time spent in religious life.

Table 2

Age of Subgroups Divided According to Date
of Entrance into Religious Life

Group	N	Mean Age	Standard deviation	t-ratio with next group
A	21	32.95	2.80*	1.91
B	9	31.00	1.63	2.56
C	11	28.28	2.65	11.33
D	23	26.90	1.72	2.96
E	16	25.12	.94	

* Two extreme scores of 42 and 40 years raise the s.d. to this high figure. The t-ratio of 1.91 consequently misses the .05 level by .14. But since these scores are on the upper tail of the ratio, it does not make the groups A and B homogeneous by age. All other t-ratios are significant beyond the .05 level.

In order to see if there is a consistent influence of the regime of religious life itself on the subjects, they were divided into the five groups as given in Table 2 above. All these men have been in the active work of the order for at least one full year beyond their formal training. This should remove any differentiating influence of religious training from the MMPI scores as a temporary or situational factor. The length of time in religious life for the members of each group is given in Table 3.

Table 3

Length of Time in Religious Life
of Experimental Subgroups

Group	N	Date of entry	Average years in religious life	Average years in community
A	21	1950-1951	13.5	9.5
B	9	1952-1953	11.5	7.5
C	11	1954-1955	9.5	5.5
D	23	1956-1957	7.5	3.5
E	16	1958-1959	5.5	1.5

Of the three factors possibly influencing the MMPI scores of religious mentioned at the beginning of this chapter, two seem to be rather constant for all subjects of the group under study: 1) personality traits typical of those attracted to religious life, and 2) training in religious life. Therefore, if significant differences are found in the groups according to different amounts of time in religious life, it seems reasonable to conclude that the regime of the religious life itself would seem to influence the MMPI scores of the religious.

Psychometric Instruments:

(1) The MMPI

The most commonly used measure for the psychological assessment of priests, religious, and the candidates to these states seems to be the Minnesota Multi-phasic Personality Inventory (MMPI). It is designed "to provide an objective

assessment of some of the major personality characteristics that affect personal and social adjustment.... Nine scales were originally developed for clinical use for the test and were named for the abnormal conditions on which their construction was based." (Dahlstrom and Welsh, 1960, p. 3) A tenth scale was developed later and is now included in the regular booklet of the test. The tenth scale (Si) will not be included in this study since it was not yet incorporated into the booklet form of the test when the MMPI was first administered to the experimental group in this study.

The literature on the MMPI is vast. Cottle (1953) brought together the important studies on the MMPI up to that year. Welsh and Dahlstrom (1956) put into one volume sixty-six of the most important works on the MMPI up to that date. Each year dozens of articles on the MMPI appear in various journals. The wealth of data is so well summarized and presented in Dahlstrom and Welsh's MMPI Handbook (1960) that the reader is simply referred to this work. However, an explanation of the basic scales will be presented here for the convenience of the reader. The explanations in the MMPI Handbook are excellent, but tend more toward the clinical terms for the serious abnormalities upon which construction was based. An explanation in more common parlance is given by Hathaway and Monachesi (1953).

Cannot Say Scale (?): Subjects often leave questions unanswered. A high number of unanswered items would mean that, because of the unanswered questions, no conclusions would be safe. In the case of the present study, this scale can be ignored, since there were not enough questions left unanswered on any one of the tests to be noteworthy.

L Scale: "High scores are obtained on persons who try (often unconscious-

ly) to answer all the items in ways that will seem to fit most clearly into the subject's interpretation of the moral code regardless of secret knowledge about himself to the contrary. Such attempts could be called defensiveness or, in flagrant cases, "faking good." (p. 15)

F Scale: "The F score is somewhat the opposite of the L score." (p.15)

There are three possible sources of a high F score: 1) the subject could be trying to look bad, "faking bad," or 2) he might be very careless in answering the questions, or 3) he might actually be severely maladjusted.

K Scale: In general, higher K scores indicate a defensiveness and lack of candor, while lower K scores show greater frankness and self-criticism. "This most recent of the validity scales was developed as a measure of test-taking attitude appearing either as personal defensiveness or as an exhibition of personal defects and troubles." (Dahlstrom and Welsh, 1960, p. 50) Because the higher K suppresses some unfavorable items on other scales, five clinical scales are "corrected" according to the elevation of the K score. "The modification of scores on the five clinical scales by use of K was shown to be justified within the borderline abnormal score range. Routine use of K within the normal score range was not specially validated but is usually practiced to simplify application of interpretation." (p. 16)

More recent studies have shown that the K scale likewise is a measure of self-acceptance and self-confidence in well-adjusted persons, especially college populations. Heilbrun (1961) showed that the K scores seems a better measure of defensiveness in the maladjusted than in the adjusted. But since the K-correction is routinely used on most MMPI scoring, it will likewise be used in the present study.

The ten clinical scales will simply be mentioned with the personality char-

acteristics which they purport to measure. The source is Hathaway and Monachesi (1953).

Scale 1 (Ha): This scale picks up abnormal concern over bodily functions. "These complaints can be in part an outcome of obvious tissue pathology, but are usually so varied and symbolic in nature that they are clinically classed with what is currently termed psychosomatic illness." (p. 16)

Scale 2 (D): "This scale was derived from persons who were depressed. Individuals obtaining a high score on it feel unsure of themselves and of the future and often they are sad and blue." (p. 16) High scores can likewise indicate a pessimistic outlook on life and the future.

Scale 3 (Hy): "This scale is closely allied to scale 1, but it is evidence of more complete symbolic elaboration of the physical symptoms." (p. 17) Subjects scoring high on this scale are suspected of using physical illness as a means of solving conflicts or avoiding responsibilities.

Scale 4 (Pd): Subjects who score high on this scale are usually characterized by "their failure to be controlled by the ordinary mores of society. They seem little affected by remorse and do not appear to be particularly modified by censure or punishment." (p. 17) In religious this can take the form of opposition to authority or assertion of independence.

Scale 5 (Mf): "This is a measure of masculinity or femininity of interests" (p. 17). Originally the score was designed to identify the personality features related to the disorder of male sexual inversion. However, it has been found that this scale often measures areas of interest and esthetic sensitivity without regard for sexual adjustment. Liberal arts college students consistently score high on this scale. In the present study, this scale will be included in most collations of data. When it is not included, the excep-

tion will be stated.

Scale 6 (Pa): "This scale is a measure of undue interpersonal sensitivity; at its extreme this may be a paranoid feeling about other people in which the subject feels mistreated or threatened." (p. 18) Moderate deviations on this scale might result from suspiciousness or lack of trust.

Scale 7 (Pt): "Persons with high scores are in some ways excessively meticulous or overly conscientious" (p. 18). Dahlstrom and Welsh (1960) add to this some forms of abnormal fears: worrying, difficulties in concentrating, guilt feeling, and excessive vacillation in making decisions. Other frequently noted features include excessively high standards on morality or intellectual performance (p. 70).

Scale 8 (Sc): "This is a measure related to the degree to which the person thinks and reacts like others about him.... The scale is a measure of the way in which the person may distort some aspects of the world about him perceiving it differently than others and reacting to it in unusual ways" (p. 18). A high score may likewise be the result of the subject being constrained, apathetic or indifferent. This would show in a tendency to withdraw from people or situations.

Scale 9 (Ma): "This is a measure related to enthusiasm and energy. Persons scoring high on the scale become readily interested in things and approach problems with animation" (p. 18). When the enthusiasm becomes abnormal, the activity may lead to much production that is superficial, or simply activity which is inefficient and unproductive.

Scale 0 (Si): This scale is meant to measure social introversion which is characterized by withdrawal from social contacts and responsibilities (Dahlstrom

and Welsh, 1960, p. 77).

Because the first administration of the MMPI to the subjects of this study was the full length Standard Form (booklet), the same form was used for the re-test. In using this form of the MMPI there is the advantage of being able to use many other studies for comparative purposes. Although Bier modified the MMPI specifically for seminarians, the results of the Modified Form do not seem to be appreciably more useful than those from the Standard Form. Skrincoosky (1952) did a study comparing the results of the Standard Form with those of Bier's Modified Form among a group of seminarians. The means scores were consistently higher on the Modified Form than on the Standard Form. Skrincoosky found that the differences corresponded to a statistically significant way to the number of changed items on each scale. It seems that there is little advantage in using the Modified Form.

(2) The Rating Scale

Once the MMPI scores have been acquired, it is important to know how these scores compare with actual performance of a brother in his chosen vocation. The superior of each community sends an individual report at midyear of the scholastic year to provincial superiors concerning each religious in his community. The following is a part of this report:

	Very Good	Good	Fair	Poor	Lacking
physical health	---	---	---	---	---
relations with others					
--Ability to communicate with others	---	---	---	---	---
--Deals with others in charity	---	---	---	---	---
relations with authority					
--Willingness to accept responsibility	---	---	---	---	---
--Willingness to accept accountability	---	---	---	---	---
work performance					
--Professional competence	---	---	---	---	---
--Effort at duties	---	---	---	---	---

The superior simply checks one of the five levels on each quality. In order to handle the ratings statistically, the investigator gave the values of 0-4 to the levels of ratings. Very good--4; Good--3; Fair--2; Poor--1; Lacking--0.

Procedure

The MMPI scores for the test upon entry are on file at the Provincial headquarters of the Order concerned and are available to the investigator. A religious of the order was charged with the screening program of the province.

He administered the MMPI before entry, or arranged to have it administered by competent testers in one of the high schools belonging to the order. He then hand scored the tests himself. The tests were administered in a professional setting of a school.

The retest was administered by this investigator through the mail, since it was impossible to gather the religious in one place or to visit the various areas of the country in which they were located. Before the tests were sent out, a letter was sent to all the religious eligible for this study explaining the project and asking them to return a postcard stating their willingness to participate in the program or their desire to be excluded. Eighty-two responded positively, three negatively, and seven did not respond. Tests were sent to the eighty-two subjects who responded positively, and were returned to the investigator by mail. The investigator hand scored all the tests himself and collated the data.

Statistics Used

There will be basically three kinds of comparisons made in this study. First of all, the retest scores will be correlated with the test scores. This will indicate whether the changes in scores between the test and retest are consistently in a given direction. For this the Pearson "r" will be used. It is hypothesized that the retest scores will correlate significantly with the test scores, indicating a certain reliability of the MMPI scores upon entry to predict a change in the scores after some time spent in religious life.

A second kind of comparison will be made between mean scores of various groups of scales and subjects. For this, t-ratios will be sought. Some of the subgroups are very small, and the t-ratio can be used even for small sam-

ples (Guilford, 1956, p. 218). On the basis of previous studies, it is hypothesized that the mean of all scales will rise on the retest, and that the rise will form a significant difference at the .05 level of confidence on the Mf, Pt, and Sc scales, and possibly on the Ma scale.

A third comparison will be made between frequencies of certain scores in various groups. For this comparison chi-square will be used, since this is most commonly used with data in the form of frequencies. The ratio obtained is a rough indication of whether a significant difference exists between the observed number of frequencies and the expected number of frequencies. It is hypothesized that there will be a significantly larger number of scores in the "critical area" (as described on p. 19) among those longer in religious life than among those in religious life for only a short time.

CHAPTER IV

Presentation and Analysis of Results

The data of the present study will be analyzed for the purpose of finding out whether or not the length of time in religious life affects the elevation of the MMPI scores of religious brothers. Since this is only one of three factors that have been suggested by previous studies, the other two variables must be held constant.

Factors held constant.

The first factor suggested as the principle reason for the elevation of MMPI scores in priests and religious is the amount of training received in the seminary or novitiate (Murray, 1957). The subjects of the present study have all completed their training period. All have had one year of canonical novitiate and three years of college ending with a bachelor's degree. Twenty-two of the subjects received some religious training in the postulate (candidate high school) of the order before entering the novitiate. However, as was shown in Table 2 on p.36, this training made no appreciable difference in the MMPI scores at the time of entry into the novitiate in comparison to those subjects who had no such training previous to their entry into the novitiate. Consequently, the basic religious training was essentially the same for all subjects.

The second factor suggested by previous studies as possibly accountable for the elevated MMPI scores is the personality characteristics typical of those attracted to religious life (Wauck, 1956; Sandra, 1957; Murtaugh, 1965). In comparing the profile of the group being studied in this investigation with profiles of college groups, we find the profile patterns strikingly similar on all but the Pt scale (Cf. Table 4, p. 47). This would perhaps suggest that the candidate group feels itself to be under more obligation than the college groups, but with personality characteristics very similar to the normal college population.

Table 4

MMPI Central Tendencies for 80 Candidates to
Religious Life and for Three Groups
of Comparable College Males

Group	N	Scale								
		Hs	D	Hy	Pd	Mf	Pa	Pt	So	Ma
A	80	53.7	54.0	56.8	57.2	60.2	55.4	60.7	58.5	56.3
B	369	49.9	50.5	53.9	53.7	54.9	52.5	53.2	53.1	57.6
C	100	53.6	49.8	57.0	63.2	62.0	54.4	56.7	60.3	62.8
D	5035	52.3	52.8	55.0	56.3	58.5	53.0	56.7	56.9	58.7

- A Experimental group of the present study
- B College group of Bier's study
- C College group of Murray's study
- D College group of Goodstein's study

Even if the comparison with college groups would have revealed some typical personality pattern on the MMPI as being more attracted to the religious life, this factor is held constant in the present study through the longitudinal aspect. Differences on a test-retest comparison are not caused by differences in personality characteristics, since the same persons are furnishing both sets of scores for the comparison.

With training and personality characteristics held constant, we are left with the factor of the amount of time spent in religious life as a variable.

Effect of amount of time spent in religious life on MMPI scores

The first question in a test-retest situation is whether the changes that take place are consistent. If a high correlation is found between the test and retest scores along with changes, it would be reasonable to say that the religious life affects most people in the same way.

In the present study, 64 of the 80 subjects had a more elevated mean score on the retest than on the test score. Therefore, 16 of the subjects obtained a lower mean score after being in religious life for a number of years. The general tendency is toward higher scores, but not inevitably. The relationship of the test to the retest is shown statistically in Table 5 (p. 50) by coefficients of correlation on the various scales.

In general, it can be said that the correlation coefficients are high enough to lead one to suspect a tendency of the effect of religious life on the subjects to be somewhat consistent, but they are too low to predict the nature of this effect accurately.

So far it has been seen that changes which take place in MMPI scores of religious after some time in religious life would tend to follow some kind of consistent pattern in a rather general way. The question now is: Does the amount of time spent in religious life cause significant changes in MMPI test scores? In examining the results given in Table 6 it is seen that there is a tendency for scores to rise on all scales except the L scale. It is interesting to note in Figure 2 (p. 52) that the personality pattern as indicated by the MMPI profiles does not change; there is simply a rise in the scores. Something in religious life seems to elevate the scores without changing the traits of those who have entered religious life.

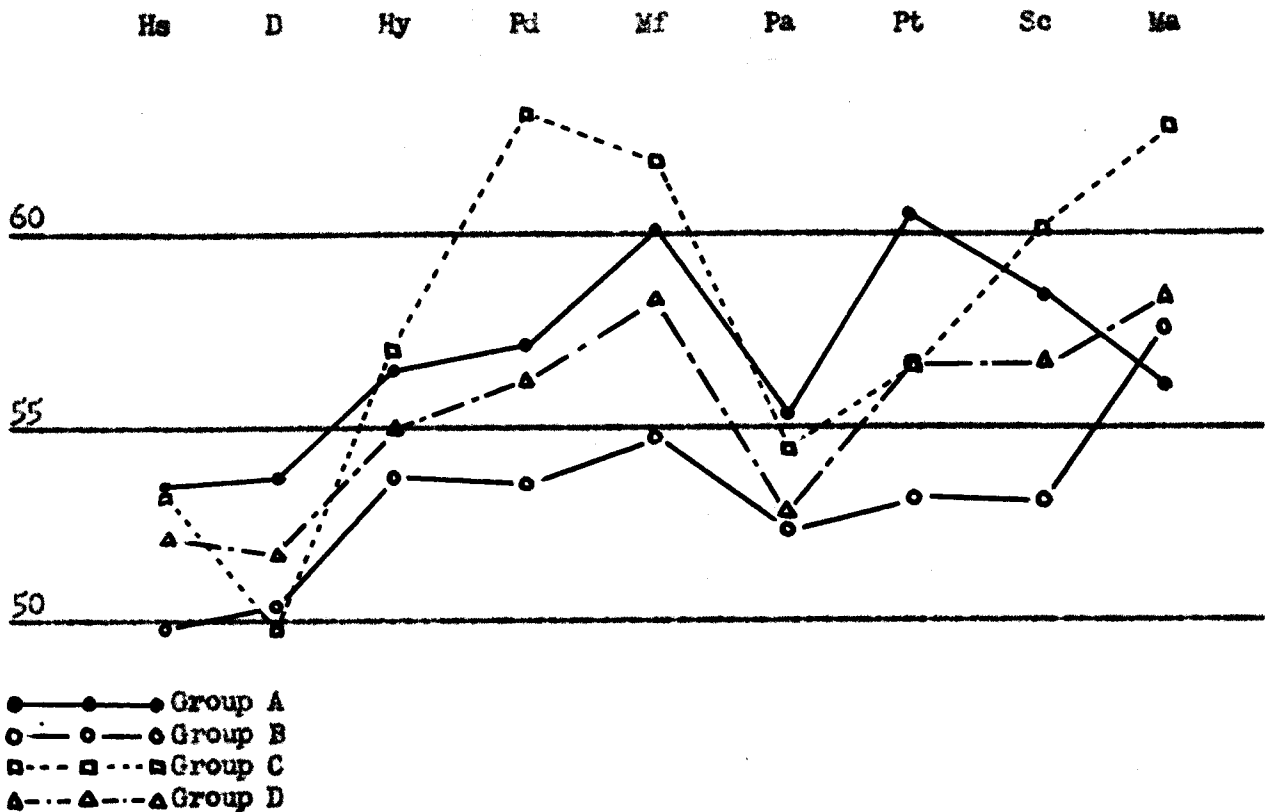


Fig. 1 Profiles of Table 4

Using only the data available on the experimental group, it cannot be decided whether the higher scores are caused by the training which the subjects received or simply by the regime of religious life (living by a Rule, constantly striving for a high ideal, etc.) or both. Here some help can be obtained from the studies done by Murray (1957) and Murtaugh (1965). Murray's study furnishes an interesting finding. He compared diocesan minor seminarians, major seminarians, and priests with minor seminarians, major seminarians, and priests of a clerical order. He found no significant differences between the minor or major seminarians of the two groups, but he did find some significant differences between the parish priests of the diocese and the parish priests

Table 5

Coefficients of Correlation Between the Test and
Retest Scores of the Experimental Group

Scale	Test mean	Retest mean	r
L	50.02	48.16	.34**
F	50.83	52.72	.31**
K	57.25	59.35	.45**
Hs	53.68	55.13	.29*
D	53.96	55.90	.34**
Hy	56.76	59.07	.16
Pd	57.15	57.68	.34**
Mf	60.23	67.26	.49**
Pa	55.41	57.22	.17
Pt	60.70	64.25	.39**
Sc	58.53	63.93	.36**
Ma	56.34	56.32	.31**

* Significant at the .05 level of confidence

** Significant at the .01 level of confidence

Table 6
 MMPI Results of the Test and Retest of the
 Entire Experimental Group (N=80)

Scale	Test		Retest		t-ratio
	Mean	Standard deviation	Mean	Standard deviation	
L	50.02	6.90	48.46	5.75	1.84
F	50.83	4.66	52.72	5.22	2.39*
K	57.25	7.74	59.35	8.13	1.66
Ha	53.68	7.88	55.13	8.34	1.12
D	53.96	9.77	55.90	10.35	1.20
Hy	56.76	6.95	59.07	7.73	1.97*
Pd	57.15	9.50	57.68	8.72	.37
Mf	60.23	9.27	67.26	8.71	4.90**
Pa	55.41	7.75	57.22	8.47	1.40
Pt	60.70	10.58	64.25	10.22	2.14*
Sc	58.53	9.46	63.93	9.42	3.59**
Ma	56.34	9.17	56.32	9.94	.01
Avg.	56.97	2.91	59.64	4.12	4.68**

* Significant at the .05 level
 ** Significant at the .01 level

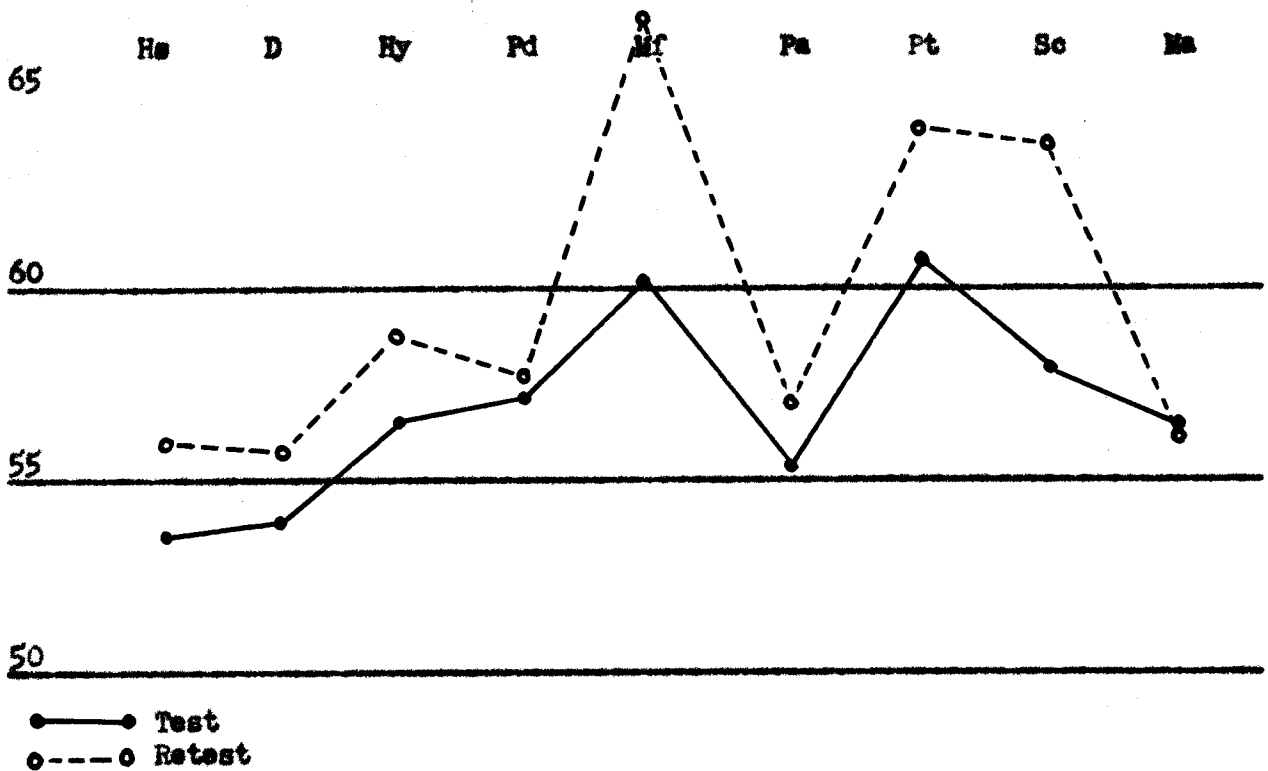
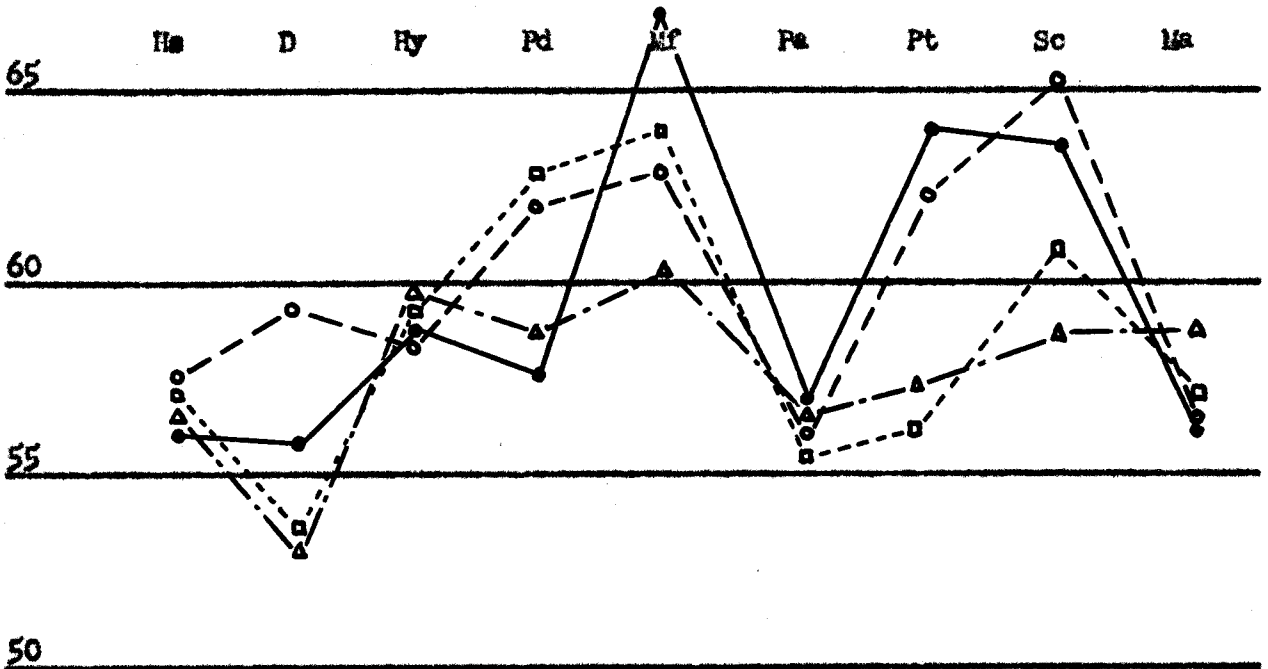


Fig. 2. Profiles of Table 6

of clerical orders. For the diocesan priests the scores on the D and Pt scales dropped after leaving the seminary and entering active parish life. The scores on these two scales remained rather elevated for the priests of the clerical order. Murtaugh's study on a group of diocesan priests corroborates Murray's finding about the scores of diocesan priests. If the scores of the present experimental group of religious Brothers are added to the graph, their scores on the D and Pt remain higher than those of diocesan priests. The scores for the Sc scale are also more elevated for members of religious orders.

It seems from these findings that religious life raises the MMPI scores on all the clinical scales. The findings of Murray and Murtaugh focus our attention on a further question: Are these raised MMPI scores acquired during



- Exp. group
- Murray: religious priests
- Murray: diocesan priests
- △——△ Murtaugh: diocesan priests

Fig. 3. MMPI profiles of two groups of diocesan priests, one group of regular priests, and the experimental group of religious Brothers.

the training period of religious life and simply maintained by the regime of religious life after training, or does the regime of religious life continue to elevate the MMPI scores the longer one remains in the religious life? If the religious life itself causes MMPI scores to rise, it would seem that there would be notable changes in the scores after the training period is terminated.

Changes in MMPI scores after termination of training period

In order to see if MMPI scores continue to rise after the termination of formal religious training of the subjects, the total experimental group was di-

vided into five subgroups according to the length of time subjects spent in religious life after the termination of their religious training period. In order to have a consistent base for comparison, the mean scores of the test scores of the total group before entry into the novitiate was used to compare with the mean scores of the retest of the subgroups. The results are given in Table 7 (p. 55).

An examination of the results as presented in Table 7 reveals no consistent pattern of change over this period of ten years. There are significant differences between some of these scores and the pre-novitiate scores on the MMPI. But there is no consistent direction of change on any one of the scales as the subjects spend more time in the religious life. It seems, therefore, that time spent in religious life is not in itself the factor accounting for a rise in MMPI scores. But since there are elevated scores in comparison to pre-entry MMPI results, we are led to suspect that a rise in MMPI scores is more a function of training than of the regime of religious life itself. If we couple this with the comparisons between the diocesan priests and religious (cf. above, p. 52), we might tentatively conclude that a rise in MMPI scores is brought about in the period of training, and the regime of religious life tends to maintain this elevation.

It is interesting to note that in the group most recently having terminated their training there are scores on the Hs, D, Hy, Pt, and Sc scales which are lower than on their pre-entry tests. But these scores do not remain below this mean. The second group, 3-4 years away from their training, again rise above the pre-entry scores on all scales. Perhaps there is a healthy reaction to the new freedom from the restrictions of formation situations which tends

Table 7
Means and T-Ratios for Groups E, D, C, B, A,
in Relation to Group I (Prenovitiates)

Scale	Group										
	I	E		D		C		B		A	
	mean	mean	t	mean	t	mean	t	mean	t	mean	t
L	50.02	51.00	.51	47.60	1.52	45.81	1.91	47.88	.88	48.47	.93
F	50.83	51.20	.26	54.17	2.96**	51.81	.64	51.88	.61	52.80	1.67
K	57.25	58.48	.54	58.95	.90	57.72	.18	62.55	1.94	60.42	1.67
Hs	53.68	52.13	.70	54.82	.60	56.81	1.23	54.22	.18	57.19	1.71
D	53.96	53.66	.10	59.60	2.35*	52.72	.39	51.55	.71	56.19	.89
Hy	56.76	55.93	.42	60.78	2.32*	56.45	.14	60.00	1.28	60.71	2.21*
Pd	57.15	57.80	.24	58.52	.62	55.18	.65	55.55	.48	58.71	.66
Mf	60.23	68.40	3.17**	65.30	2.30*	67.72	2.50*	69.44	2.86**	67.23	3.02*
Pa	55.41	56.93	.68	58.21	1.46	57.45	.82	59.88	1.68	55.14	.13
Pt	60.70	59.93	.26	67.26	2.68**	67.54	2.03*	60.77	.02	63.00	.85
Sc	58.53	57.93	.23	66.39	3.52**	64.72	2.00*	62.22	1.12	65.28	2.78**
Ma	56.34	55.33	.36	54.91	.58	55.90	.14	56.44	.29	57.57	.46
Avg. ¹	56.97	57.56	.68	60.64	1.2	59.39	1.10	57.79	.95	60.11	1.41

*Significant at the .05 level of confidence.

**Significant at the .01 level of confidence.

¹Average of the clinical scales only.

to disappear when the regime of religious life in community makes itself consistently felt.

Rice (1958) did a study of religious of a clerical order who were seminarians, but after having had several years of teaching experience in active life. It would seem that this group in many ways would be similar to the population of the present study in respect to the effect of the regime of religious life on MMPI scores. A comparison of these two groups is given in profile in Fig. 4. The scores are less elevated than Murray's major seminarians, but more elevated than his diocesan priests. Again it would seem that the regime of religious life serves to maintain an elevation which was largely the result of the years of training.

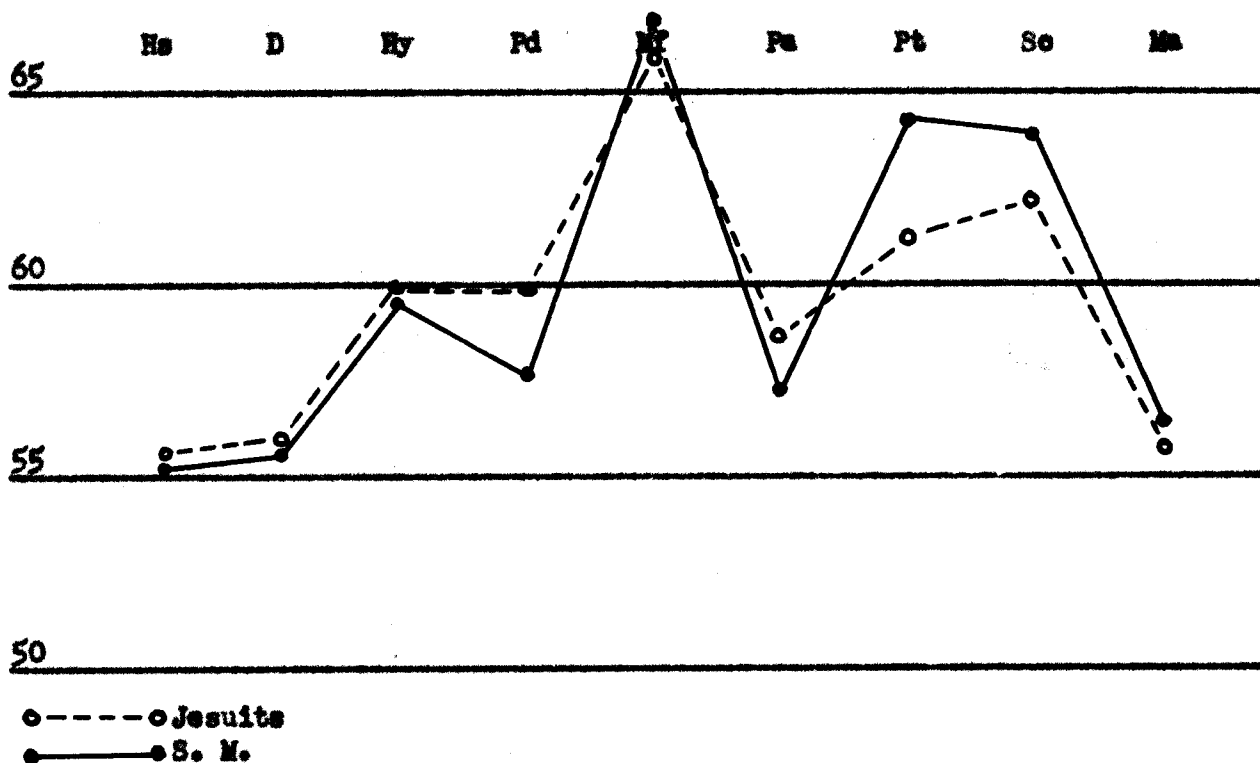


Fig. 4. Profiles of the Rice group of religious of a clerical order and of the religious Brothers of the experimental group.

An obvious weakness of the present study manifests itself clearly at this point. Unless the MMPI scores of these religious at or near the end of their formal training period are available to compare with the pre-entry and their post-training MMPI scores, it cannot be stated with much confidence that the rise in MMPI scores is really a function of the training rather than life in a religious community. The present study seems to point in that direction, but an important step in this longitudinal study is missing.

Scores elevated beyond the normal range

In the question of psychological adjustment in religious life, what is perhaps of more importance on the MMPI scores than general elevation is the number of scores that are carried beyond the normal range. Reading in T-scores converted from the raw scores, a scale that rises above a T-score of 70 is considered beyond the normal range, since it is more than two standard deviations away from the mean of the normative groups. Part of a criterion advanced by Kobler (1964) suggests that if an applicant has a score of 58 $\frac{1}{2}$ on the MMPI scales including one or more scores at or above 70, and high scores especially on the Pt and Sc scales, he should be further seriously evaluated in a clinical way concerning his suitability for religious life. Perhaps comparing the groups on this basis rather than on simple significant difference on mean scores would be more meaningful. As was seen in Table 7 (p. 55), on the mean of the combined clinical scales, none of the groups had significantly higher retest scores than pre-entry scores.

If Kobler's criteria is restricted to profiles that have a mean score of 58 $\frac{1}{2}$ on the clinical scales and two or more scales above a T-score of 70 (excluding the Mf scale), the result is a breakdown of the number of cases for

which the MMPI scores indicate psychological maladjustment as given in Table 8 (p. 59).

Of the 80 subjects included in this study, 14 had MMPI profiles which fell into the "critical area" before they entered the order. Of these 14, five actually lowered their scores after entrance so that at the time of the retest they no longer fell into the category of critical scores. These five cases are found in the "Test only" column of Table 8. The other 9 who entered with critical scores again fell into the critical area on the retest and most of them had even more elevated scores on the retest than at the time of entrance. These nine are found under the column "Both" in Table 8. It was found that 18 subjects who did not fall into the critical area of scores upon entry did fall into this area on the retest. The scales which rose to carry these profiles into the critical area are given in Table 10 on p. 62.

On the validity scales of the profiles falling within the critical area, no scores on the L and F scales were above T-70. One profile had a K of 75, but this would tend to lower the scores rather than raise them. The validity scales in general indicate a frankness in attitude toward the test.

A question presents itself about the 18 who developed a critical score after entering religious life. Were these critical scores developed during the time of training or after entering into the work of the Order? An examination of the breakdown according to the number of years spent in the active work of the Order is of little help here. Only two cases of such critical scores exist in the youngest group, but there are only three in the second oldest group. Moreover, a better screening program for the younger men might account for the drop in number of critical scores among them. Again we see

Table 8

Analysis of "Critical" Profiles in the Experimental Group:
 Mean MMPI Score 58 $\frac{1}{2}$ and Two or More Scales Over T-70

Group	N	Test only	Retest only	Both
A	21	1	3	4
B	9	1	1	1
C	11	1	4	1
D	23	2	9	2
E	16	0	1	1
Total	80	5	18	9

the need of MMPI scores obtained at the end of the training period to be able to answer this question. It is also of interest to find out whether the five who lowered their scores below the critical range on the retest did so during their training period or after they left their period of training. The present study can do no more than suggest the means by which such information could be obtained: a retest near the end of the training period and again several years after leaving the training situation. Such a longitudinal study would be invaluable for determining at what period these scores tend to rise into the critical range.

If we divide the experimental group into two subgroups instead of five, we get the breakdown of critical scores as given in Table 9, p. 60.

On the basis of the null hypothesis (that there will be no change in the

Table 9

Number of Cases Falling Under the Norms of the Critical
Criteria Among the Experimental Group.*

Number of scales over T-70	1-5 years in active life		6-10 years in active life	
	Test	Retest	Test	Retest
No scales	34	15	22	15
Only Mf	2	6	0	5
One scale	7	14	5	4
Total		43		27
Two scales	4	8	1	5
Three-eight	0	4	5	4
Total		4		6
Grand Total		47		33

* The Mf scale is not included in the figures except in the row specifically designated "only Mf", since the cultural element is heavily influential on this scale. The Si scale is not included because it was not part of the pre-entry MMPI for the older subjects.

number of scores falling into the critical area in the retest), the increase from 6 to 9 in the older group renders a chi square ratio of only 1.50. This is not significant at the .05 level of confidence. But the increase from 4 to 12 among the younger subjects yields a chi square ratio of 16.00, which is statistically significant well beyond the .01 level of confidence. This indica-

tion would again lead to the suggestion that the critical scores are developed early in religious life, and probably during the training period.

If training in religious life tends to carry some scores beyond the normal range, which scales are most commonly elevated into the critical area? Dividing the experimental group again into two subgroups rather than into five, the result a breakdown by scales as given in Table 10 (p. 62). In comparing the two groups, it seems that the Order became more selective in accepting their candidates as time went on. In the older group 24 scales out of 33 protocols accepted were over T-70; in the younger group only 17 scales out of 47 protocols accepted were over T-70. But despite this more careful screening, the rise in critical scores among the younger group is greater than among the older group. On the basis of an expectancy of no difference between the younger and the older group, a comparison of the increase of critical scores among the younger group with the older group produces a chi square of 7.20, which is significant at the .01 level of confidence.

Examination of the individual scales reveals some interesting notes. Among the older group the number of scores greater than T-70 on the D scale decreased from 6 in the test to 2 in the retest, whereas in the younger group the number of critical scores increased from 1 in the test to 8 in the retest. How can this be accounted for? Examination of Table 7 on p. 55 shows that there is no progressive tendency of these scores in a given direction. The mean scores would not lead us to expect the data we have on scores above T-70 on the D scale. The investigator found no indications which might lead to an explanation of these sharp rises in the D scores of some subjects. A guess might be proffered in the form of a question: Do these young men during their

Table 10

Number of T-Scores over 70 in
the Experimental Group

Scale	6-10 years in active life		1-5 years in active life	
	Pre-novit.	Retest	Pre-novit.	Retest
F	0	0	0	0
K	0	6	2	4
Hs	2	6	0	1
D	6	2	1	8
Hr	0	3	2	1
Pd	4	2	5	3
Mf	(5)	(10)	(6)	(15)
Pa	2	2	0	5
Pt	7	9	5	12
Sc	3	9	1	7
Ma	0	4	1	5
Si	(no scores)	(4)	(0)	(6)
Total	24	43	17	46

* Mf and Si are not included in the totals.

first years in the active work of the Order feel that they must prove themselves in the work before they will be accepted? Are they still at this point trying to win the acceptance of the men in their communities? There is a considerable rise in critical scores on the Pt and Sc scales likewise. If they are still working to gain acceptance, they become overly conscientious and show feelings of being isolated. Perhaps a greater acceptance and support on the part of other members of the communities would tend to keep these critical scores down. If this condition might account for some of the "critical" MMPI scores, then the elevation on the MMPI of many of these religious men is due to situational stress, and could be corrected by the correct environmental atmosphere in the communities these men live in.

One of the indications that the elevated scores are due somewhat to situational factors would be shown if the men who have elevated scores would still function well in their vocation. To check this out, the ratings of the superior in the communities where each of these brothers was stationed at the time of the retest were compared with the MMPI scores. These ratings were explained on p. 43. Table 11 (p. 64) gives the results.

Only two of the comparisons show significant differences in the ratings of subjects by superiors; 1) Those who developed critical scores after entry into religious life are judged to be in better health than the group with no critical scores; 2) Those who had critical scores upon entry into religious life and maintained these critical scores in the retest were judged to be significantly poorer in their relations with authorities than the group with no critical scores. The group having critical scores on both the test and the retest were judged poorer in their relations with others than the group with no critical scores, but only at the .20 level of confidence.

Table 11

Comparison of Ratings of Superiors for Those with Critical
MMPI Scores with Those Having Scores Below the Critical Area

Quality	Normal scores (48)					Critical scores					
						Test only (5)		Retest only (16)		Both (9)	
	mean	s.d.	mean	s.d.	t	mean	s.d.	t	mean	s.d.	t
physical health	3.08	.64	3.20	.24	.413	3.40	.59	3.7*	3.00	.26	.364
relations w. others	6.08	1.52	6.20	.31	.182	5.94	1.22	.085	5.33	1.33	1.35
relations w. authority	6.18	1.30	5.60	.51	.966	5.88	1.32	.81	5.10	1.45	2.16**
work performance	6.18	1.12	6.60	.25	.823	6.22	.77	.14	6.00	.26	.30

* Significant at the .01 level of confidence.

** Significant at the .05 level of confidence.

These findings seem to suggest that those entering with critical scores will probably, with greater probability than chance, be poorly adjusted to community life. But those who develop critical scores after they enter religious life will be as well adjusted to their vocation as those who maintain non-critical scores, but they will live under greater strain. This conclusion in turn suggests that critical elevated scores on the MMPI which are developed after entry into religious life are brought about by situational factors rather than

by actual deterioration of personality adjustment patterns.

On the other hand, there is the possibility that the community is more tolerant of those having developed critical areas after entrance into religious life. Such acceptance would aid in adjusting to their chosen life.

CHAPTER V
SUMMARY AND CONCLUSIONS

Summary

A longitudinal study was made of the MMPI scores obtained by male religious in relation to the length of time spent in religious life.

The subjects of this study were 80 Brothers, devoted principally to teaching who entered the Order during the years 1950-1959. They took the MMPI before entering the novitiate and retook it in the fall of 1964. The basic religious training of one year of canonical novitiate and three years of liberal arts college education was the same for all. Exceptions to this training pattern were 22 candidates who had additional training of one or more years in the postulate (high school level) of the Order before taking the MMPI to enter the novitiate. Although there is a general rise on the scores of the postulants compared with the non-postulants (cf. Table $\frac{1}{2}$), the differences on the clinical scales are not statistically significant.

On the basis of Mastej's study (1954), the factor of chronological age as accounting for the differences in scores was discounted.

In order to see if the length of time spent in religious life exerted an influence on the MMPI scores, the total experimental group was divided into five subgroups according to the number of years spent in religious life (cf. Table 4).

Since the MMPI is the most commonly used measure for the psychological assessment of priests, religious, and candidates, the full length booklet form of this test was chosen as the psychometric instrument of the present study.

Past studies have pointed to three factors possibly accounting for the

more elevated MMPI scores of priests and religious in comparison with other normal populations: 1) the personality traits typical of those attracted to religious life; 2) the amount of training received in religious life; and 3) the regime of religious life itself, greater length of time in religious life bringing about constantly increasing MMPI scores.

The first factor was held constant in the present study by the fact of the investigation being a longitudinal study. The same personalities were involved in both the test and retest so that higher scores would not be due to different personality characteristics.

The second factor was likewise practically invariable for all the subjects. Thus, of the three factors suggested as accountable for rising MMPI scores for religious, the length of time spent in religious life is the one clear variable with the experimental group under study.

The consistency of the changes between the test and retest MMPI scores was sought through a correlation study. Coefficients of correlation ranged from .16 to .49. All the validity scales and six of the clinical scales were statistically significant at the .01 level of confidence and one clinical scale was significant at the .05 level of confidence. The coefficients are high enough to indicate a certain consistent tendency in change of MMPI scores, but they are too low to allow accurate prediction of this change.

In comparing the mean MMPI scores for the total group on the test and retest, it was found that the retest scores were significantly higher at the .01 level of confidence on scales *Mf* and *Sc*, and at the .05 level on scales *F*, *Hy*, and *Pt*. The rise in scores, however, did not change the personality pattern as indicated by the MMPI profiles.

In order to determine whether the rise in scores was caused by training or

by the regime of religious life itself, the mean scores of the five subgroups determined according to the amount of time spent in religious life were compared. The results of this comparison showed no consistent pattern of change over the period of ten years in active religious life. It seems, therefore, that the amount of time spent in religious life is not a consistent factor in accounting for a rise in MMPI scores. But since there are significant differences between the pre-entry MMPI scores and the retest scores, it is suggested that the rise in MMPI scores is more a function of the training period than of religious life itself.

Comparisons were made with studies on diocesan priests and parish priests of religious orders (Murray, 1957; Murtaugh, 1965). The diocesan priests were considerably lower on the D, Pt, and Sc scales. This suggested that a rise in MMPI scores is brought about during the training period of religious life, and the regime of religious life simply tends to maintain this elevation in active life. A comparison with a group studied by Rice (1958), which in many ways is comparable to the experimental group of this study, revealed a striking similarity of group profiles. Diocesan priests do not have the factor of a religious Rule to maintain some of the elevated scores.

Using part of Kobler's criteria for "critical scores" on the MMPI's of candidates for religious life, comparisons were made of the number of subjects having a mean score of T-58 $\frac{1}{2}$ on the clinical scales of the MMPI, including two or more scales of T-70 $\frac{1}{2}$. It was found that of the 80 subjects in this study, 11 entered the Order with scores in the critical area. Of these 11, 5 improved so that in the retest they no longer fell within the critical range; the other 9 again fell within the critical range on the retest. There were 18 new cases

which developed between the test and retest which now fall into the critical area of MMPI scores. The validity scores on all tests of the experimental group were within the normal range. It was impossible to determine whether the critical scores were developed during training or after it. But some indications tend to indicate that they are not developed progressively as one spends more time in religious life. Twelve of the 18 new cases were found within the younger half of the experimental group and only six in the older half of the group.

In order to see whether the elevated scores were due to situational factors, ratings of superiors were compared with the retest MMPI scores. These ratings were in four areas: 1) physical health, 2) relations with others, 3) relations with authority, and 4) work performance. Only two of the comparisons show significant differences in the ratings of subjects by superiors: a) Those who developed critical scores after entry into religious life are judged to be in better health than the group with no critical scores; 2) Those who had critical scores upon entry into religious life and maintained these critical scores in the retest were judged to be significantly poorer in their relations with authorities than the group with no critical scores. The group having critical scores on both the test and the retest were judged poorer in their relations with others than the "normal" group with no critical scores, but only at the .20 level of confidence.

Conclusions

Three hypotheses were tested in the present investigations

1) It was hypothesized that significant differences in MMPI scores would be found between test and retest results indicating that some factors which

operate after entrance into religious life are at least partially accountable for a rise in MMPI scores. This hypothesis was verified for some scales. The F, Hy, and Pt scales were significantly higher at the ^{.05} .01 level of confidence; the Hf and Sc scales were significantly higher at the ^{.01} .05 level. The L scale was T-1.56 lower, and the Ma scale remained virtually the same.

These results present the religious as having become more honest in his appraisal of himself, more conscientious, and aware of being more isolated from the world. He thinks differently from the way the rest of the world does, which is to be expected in some degree. He more easily tends to use physical illness to solve conflicts or problems. This raises the question as to whether personal support from others is lacking to such a degree as to promote such a psychological defense. There is a sharp rise in the refinement of his tastes.

2) It was hypothesized that there would be a continuing rise in MMPI scores the longer a subject remained in religious life. This hypothesis was not verified by the findings of this investigation. There was no consistent tendency of either rising or declining scores during the years after the termination of training. The investigator concluded that the rise in scores took place for the most part during the training period. It was found, however, that the regime of religious life seems to maintain the elevated scores produced by the training period. Some scores of diocesan priests, whose life is not regulated by a religious Rule after seminary training, show a decrease after termination of their seminary training. Perhaps the same factors which maintain the elevated scores for religious brothers are operative during the training period and account for the initial rise in scores. In other words, it is not so much the situational conditions of training as such which causes the elevation of scores, but the

factors of religious life which are operative during the years of training, as well as after their termination. The religious, already in the period of training, takes on a goal of perfection he did not have before. Things perfectly legitimate before are now wrong for him in view of his chosen goal. It would be expected that Pt should rise. He sets himself apart from others in some ways, and sees the world somewhat differently in relation to himself than what others do. This should affect the Sc score. The increase in somatic complaints is unexpected and suggests that some kind of support in solving conflicts is absent, so that the religious could use physical ills to deal with conflicts. A greater mutual support among religious would possibly lower this score. Cultivating an observance of rules rather than interpersonal relationships perhaps reduces the felt support which would lower the Hy score, and it might likewise be a factor in elevating the Sc score.

3) It was hypothesized that those obtaining unfavorable MMPI results would be rated unfavorably by their superiors concerning their adjustment to their chosen vocation, showing that unfavorable MMPI scores are indicative of unfavorable adjustment to one's chosen vocation. This hypothesis was verified only in a very limited way. Those having unfavorable results according to the critical norms established on p. 44 can be divided into three groups and applied to the hypothesis:

- a) Those who had critical scores on their pre-entrance MMPI results but no critical scores on the retest. There were five such religious out of the 80 subjects, and they were not rated significantly different from the normal group which had no critical scores on either the test or retest.
- b) Those who had critical scores in the retest, but not on the test.

These critical scores of these 18 religious were developed after entrance into religious life. They were rated significantly better in physical health than the normal group. Ratings on the other qualities were not significantly different from the normal group.

c) Those who had critical scores in both the pre-entrance test and the retest. These subjects were rated to be significantly poorer in their relations with authority at the .05 level of significance. They were likewise rated poorer in their relations with others, but significance reached only the .20 level of confidence.

These findings would seem to indicate that religious life definitely causes an elevation in MMPI scores, but that this elevation is not an indication of personality breakdown. It is rather due to the added stress caused by taking on a higher goal of self-perfection, compliance to a detailed Rule of life, and greater concern for others. The elevation of scores is, therefore, largely situational, but the situation endures beyond the training period. This would explain why the 18 subjects who obtained critical scores on the retest only were not detected by the pre-entry test—they were not yet experiencing the situational stress of religious life which elevates certain scores.

If the elevated scores are in many cases situational, they could be modified by modifying the situation which causes the elevation. Serious thought should be given to whether or not such modification is desirable.

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APPROVAL SHEET

The thesis submitted by Reverend Quentin Hakenewerth, S.M. 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.

January 17, 1966
Date

Fraudt Kobler
Signature of Adviser