



1969

## Changes in the MMPI Scores of a Group of Diocesan Seminarians, Tested at Fourth Year Minor Seminary Level, Retested in the Second Year of Graduate Theology: A Longitudinal Study

Richard J. Feller  
*Loyola University Chicago*

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Changes in the MMPI Scores of a Group  
of Diocesan Seminarians, Tested at Fourth  
Year Minor Seminary Level, Retested in the  
Second Year of Graduate Theology:  
A Longitudinal Study

by

Richard J. Feller

A Thesis Submitted to the Faculty of the Graduate School  
of Loyola University in Partial Fulfillment of  
the Requirements for the Degree of  
Master of Arts  
January  
1969

## LIFE

Rev. Richard J. Feller was born in Chicago, Illinois on May 11, 1927. He was educated for the Priesthood at Quigley Preparatory Seminary and at St. Mary of the Lake Seminary. He received a Bachelor of Arts Degree with a Major in Philosophy from St. Mary of the Lake Seminary. He also received a Master of Arts Degree in Religion from the same seminary.

He taught at St. Patrick's High School, Brother Rice High School and The Academy of Our Lady in Chicago, Illinois. He also worked for two agencies in the Archdiocese. In both the Catholic Charities and the Archdiocesan Council of Catholic Women, he was involved in counseling services.

He began his graduate studies at Loyola University in 1963. Since that time, he has been working in the Parish of St. Colette in Rolling Meadows, Illinois, Christ the King Parish in Chicago, Illinois, and St. Alphonsus Parish in Prospect Heights, Illinois.

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## Chapter I

### Introduction

An article in Theological Dictionary (Rahner & Vorgrimier, 1965, p.377) states this of the priest: ". . . He needs his own specific spirit of responsibility, courage, disinterested service and self-sacrifice for others, and an imaginative sympathy for the circumstances and mentality of others." Clearly, the priest must be a man of deep, personal self-awareness, and of an abiding and mature love of others. Since Apostolic times, the Church has spoken of the characteristics of priests. St. Paul, in his Epistle to the Hebrews (v., 1 & 2) reflectively wrote that " ... every high priest has been taken out of mankind ... so he can sympathize with those who are ignorant or uncertain because he too lives in the limitations of weakness." In writing to Titus (1, 8) Paul insisted that a priest be " ... sensible, moral, devout and self-controlled." In another Epistle, the First Epistle to Timothy, (I Tim., iii, 2-7) Paul listed essential characteristics of priests. Each priest must be " ... temperate, discreet and courteous, hospitable and a good teacher ... not hot-tempered, but kind and peaceable."

Over the centuries, the Church has broadened her understanding of the priesthood and the priest. The Council of Trent legislated a better education for priestly students. Recent Popes have reflected on the broadening aspects of the priestly life and have written regarding the choice of men to be priests. Pius XI (1936) warned superiors of seminaries to discourage those who are not suited for the priesthood, and Pius XII (1951) spoke of evaluating the reasons and intentions which motivate students for the priesthood. As the

Church's understanding of life and priesthood have grown, the directives regarding priest and seminarian have become more clearly defined.

Paul VI (1967), though not speaking specifically of seminarians and priests, mirrored current psychology in a recent Encyclical. In paragraph fifteen of On the Development of Peoples, Paul VI said this: "In the design of God, every man is called upon to develop and fulfill himself, for every life is a vocation." He also insisted that man use his intelligence and will so that " ... he can grow in humanity, can enhance his personal worth, can become more a person." Nor did the Holy Father see this growth as something optional. " ... Human fulfillment constitutes, as it were, a summary of our duties." Later in the same Encyclical (Par. 42) Paul VI wrote: "What must be aimed at is complete humanism. And what is that if not the fully-rounded development of the whole man and of all men?" Since this "human-fulfillment" is a duty of all men, it is obviously the duty of the seminarian and the priest.

Many of the Decrees and Constitutions of the Second Vatican Council reflect rather clearly that the Church is interested in the insights and helps of psychology. In the Decree on the Adaptation and Renewal of Religious Life (1965), Vatican II stated that priestly " ... candidates should be suitably and carefully chosen." Paragraph twenty-four continues: Once chosen ... "The norms of Christian education are to be religiously observed and properly complemented by the newer findings of sound psychology and pedagogy, " in educating the students. To what end is this use of modern pedagogy and psychology? The Council stated " ... By a wisely planned training there is also to be developed in the students a due human maturity" (Section IV, Par. 11).

There is then a current, cultured, realistic and true emphasis on borrowing from "truth-at-large" in the education of seminarians. This is nothing new. The Church has always tried to educate her priests to the reality of life. As mankind at large comprehends this reality more deeply, the Church reacts in her demands regarding the selection of and formation of candidates for the priesthood. Psychology presents new insights and norms to this selection and formation process.

Perhaps the most basic emphasis of the Catholic Bishops of the world gathered in Council regarding the training of seminarians is found in the following quote. It is the sixth paragraph of the third section of the Decree on Priestly Training.

With watchful concern for the age of each and for his stage of progress, an inquiry should be made into the candidate's proper intention and freedom of choice, into his spiritual, moral, and intellectual qualifications, into his appropriate physical and psychic health - taking into consideration also possible hereditary deficiencies. Also to be considered is the ability of the candidate to bear the priestly burdens and exercise the pastoral offices.

In the entire process of selecting and testing students, a due firmness is to be adopted even if a deplorable lack of priests should exist, since God will not allow His church to want for ministers if those who are worthy are promoted and those not qualified are, at an early date, guided in a fatherly way to undertake other tasks. The latter should also be given sufficient direction so that, conscious of their vocation as Christians, they might eagerly embrace the lay apostolate.

Certainly one recognizes that advances in mankind, since they are advances do not center on the individual in a selfish way. As the Pastoral Constitution on the Church in the Modern World (1965) says, "Advances in biology, psychology, and social sciences not only bring men hope of improved self-knowledge; in conjunction with technical methods, they are helping men exert direct



influence on the life of social groups." The priest is truly a man chosen from men for men!

General comments and norms about the growth of man as explicated so well in much current psychology are voiced by the Council Fathers in both the Pastoral Constitution on the Church in the Modern World (1965) and the Dogmatic Constitution on the Church (1965). The Pastoral Constitution says this: "Modern man is on the road to a more thorough development of his own personality, and to a growing discovery and vindication of his own rights" (Par.41). In the Dogmatic Constitution we find this: "Every person must walk unhesitatingly according to his own personal gifts and duties in the path of living faith, which arouses hope and works through charity" (Chapter V, par. 41). These comments are pertinent to the discussion of psychological testing programs in the seminaries and religious houses. Somehow, the seminary must help the students tap their native resources of character and personality formation. So interested is the Church in what modern sciences have to offer that She promulgated many directives specifically for seminary faculties. In the Pastoral Constitution on the Church (1965, par. 62) the Conciliar Fathers exhort:

Let those who teach theology in seminaries and universities strive to collaborate with men versed in the other sciences through a sharing of their resources and points of view... This common effort will greatly aid the formation of priests who will be able to present to our contemporaries the doctrine of the Church concerning God, man and the world, in a manner more adapted to them so that they may receive it more willingly.

Although this section of the Constitution does not explicitly mention "psychology" by name, it is incisively clear from other references that psychology is among those sciences on which collaboration is to be had.

In another Decree of the Council, the Decree on Priestly Training (1965, Section II, par. 3), clear mention is made of the Church's recognition of a sound use of psychology in seminaries. In speaking of the training of younger seminarians the Fathers stated that " ... their daily routine should be in accord with the age, the character and the stage of development of adolescents and fully adapted to the norms of a healthy psychology." This same Decree, in paragraph twenty, urges that seminarians be trained and developed in those capabilities " ... which especially contribute to dialogue with men, such as the ability to listen to others and to open their hearts and minds in the spirit of charity to the various circumstances and needs of men." The seminarians " ... should also be taught to use the aids which the disciplines of pedagogy, psychology, and sociology can provide, according to the correct methodology and the norms of ecclesiastical authority."

When the Church speaks of the education of priests for the missionary lands, (cf. Decree on Mission Activity of the Church) She insists that the students be well-rounded persons. They are to be total men. She would have them acquainted with a nation's culture, traditions, and history, with the economic status of the people. The priest must come to the people a well-educated man, a basically mature and secure person.

Since the end of Vatican Council II, National Catholic Hierarchies have been working on local norms and guidelines for the seminaries of their respective countries. Here in the United States the Bishops have released an outline called Interim Guidelines for Seminary Renewal (1968). The Bishops clearly state that there should be some sort of screening process and that psychological evaluation has some part in this process.

Admission standards should require reasonable academic ability, keeping in mind the subsequent demands required on the college level. Particular emphasis should be given to the character of the prospective student. In evaluating his character special attention should be paid to his family background, psychological health, potential for leadership and for generous service to the Church (p.9).

The very demands which this Interim Guidelines makes on the seminarians indicate that such a screening process is necessary. The seminarian is expected to foster and maintain "... a real and vital relationship with the family." He is to be involved in "... service and apostolic experience suited to his maturity and development." He is to participate in area events "... of a civic and cultural nature." He is to compete "... on an academic and athletic basis" with other similar groups in the area. In general, the Bishops say that a seminarian should go through "... the normal maturation process." The end in view is "... the goal of personal development."

That the Bishops want seminarians to be afforded opportunities for normal maturation is indirectly stressed through the norms laid down for the selection of a faculty.

In choosing priests for the seminary the appropriate authority should consider, among other factors, the following: the willingness of the priest to engage in this form of apostolate; and his genuine stability with regard to temperament, psychological health and maturity (p.9).

Regarding the Spiritual Director, Interim Guidelines says this: "He should be available for the personal spiritual needs of the students and be alert to all counseling resources inside and outside the seminary community" (p.15). Regarding the training of the Spiritual Director, it says, "It would be desirable that he receive advanced training in such disciplines as contemporary theology, scripture, and counseling."

Current ascetism, it seems, must include current psychology. "The work of spiritual direction should be viewed as one wherein the director relates spiritual values to the total development of the adolescent boy" (p. 10). More explicitly,

Special emphasis should be placed on the quality and content of spiritual direction. The spiritual program must be one designed for the needs of the adolescent, and not as though prematurely designed for a priest. As a baptized Christian, the seminarian is called to grow in the supernatural life of Christ's virtues and gifts. However, the natural virtues and those human values on which grace must build should be given due attention. Spiritual directors should have adequate preparation, particularly in such disciplines as contemporary theology, and counselling. (p. 10).

The personal development of the seminarian is not viewed in any selfish sense. The young man is called upon to live and grow in community. There must be an awareness of self, and an awareness of the other. "Priestly formation generally takes place in community. Community is understood here as an organic network of personal relationships based on physical and emotional presence" (pp. 13-19). For one to develop with, in and through community, he must be a basically normal person. The demands of community must be shared by all. "... All members of the community are expected to express themselves clearly, to share their insights and feelings, and to cooperate in the implementation of the regulations" (p. 19).

The mind of the official Church is clear with regard to the fact that psychology has its role in the selection of and formation of both the student body and the faculty for seminaries. Many studies are currently being made to help provide screening and formation norms for seminary systems. One recent study (Lonsway, 1968) had as its express purpose "... to explore background

characteristics and selected traits of the first-year students in the seminaries of the Midwest Association of Theological Schools" (p.3). The general conclusion of this investigation follows.

Issues relating to seminarians' selection, education and later placement require a great deal of careful study, followed by imaginative experimentation to develop more appropriate programs of theological education. Young men committed to the priesthood clearly merit the best education possible to fulfill their appointed roles after ordination (p. 68).

Although Lonsway does not say so explicitly, he seems to agree that localized norms are important. Smaller, urban dioceses differ from larger urban dioceses. City and country are not the same. Each seminary system must determine its own program of testing for screening and formation purposes.

In view of the current attitude of the Church, and in view of the fact that localized norms must be set up, this present investigation has been undertaken. This study hopes to contribute some new data regarding the use of the Minnesota Multiphasic Personality Inventory in seminary testing. Actually, this longitudinal study is one of those envisioned by Gorman (1961) who wrote of his own study: "It is the first of a projected series of personality studies planned for this seminary population." Gorman hoped, and hopes, to set up localized norms for a seminary testing program (p.2).

Grant (1967) is certainly in agreement with this procedure.

The diversity of conclusions points to the fact that each seminary or religious order will probably need to standardize its own screening procedure. Best results are usually obtained from test programs geared to meet the needs of particular situations. A highly skilled and well-trained individual would be required to design such a program. Perhaps the end result of such a program will be to make screening procedures as much of an art as a scientific process (p.49).

The main impetus for a longitudinal study came from D'Arcy's (1962) comment: "Without longitudinal studies there will be no way of adequately accounting for the differential effects of training, maturation, and selection" (p.193). It is hoped that this study will offer new indications of what the "diocesan-seminarian-profile" is like. This investigator would not do away with other criteria of evaluating the presence of the priestly vocation. Grant's (1967) observation is well-taken.

When faced with the complexities of selecting candidates, those in charge of formation often turn to psychological testing for a facile solution to the question of choosing vocations. Psychological tests or psychiatric evaluation are not a substitute for experienced and first-hand observation made by responsible superiors (p.31).

Finally, this study has been undertaken according to the mind of Cattell (1948) who wrote:

To predict the suitability of a person for inclusion in a given education or vocation group, certain persistent selective effects in the group concerned should always be taken into account, over and above the IQ itself (p. 341).

This investigation will test the following null hypothesis: There will be no significant differences between the mean test scores of a group of diocesan seminarians tested at the fourth year minor seminary level and retested at second year graduate theology level. The hypothesis will be tested for significance of differences at the .05 level of confidence.

## Chapter II

### Review of Related Literature

Moore's (1936) findings regarding the incidence of insanity among priests, both diocesan and religious, and religious, both brothers and sisters, are very important in the history of screening and testing programs for seminaries and religious houses. The fact that he found a disproportionately high degree of insanity among the priests and religious when he compared them to the general population prompted Moore to recommend better screening procedures in the selection of seminarians and religious aspirants. Though the absolute number of insanity cases among the general population was higher, Moore found that if he excluded those whose difficulties seemed paretic in origin, the priests and the religious were higher. He suggested that this fact of higher numbers of functional disorders might be attributed either to the building tensions of priestly or religious living, or to the fact that "psychosis-prone" persons might be attracted to the priesthood and religious life. In either event, Moore saw some value in setting up testing programs.

Since Moore's study, many others have been conducted. Those which seem to pertain most to this investigation fall into three categories. First, there are those which deal with religious and seminary populations. Many such studies used the MMPI, either alone or in combination with other instruments. Second, there are those which are longitudinal. In this investigation, only those longitudinal studies which used the MMPI will be considered. Third, there are studies which consider age as a factor.

## General Studies

Preeminently important among these general studies is that of Bier (1956). Bier used the MMPI which was chosen "... as the most promising instrument in the field" (p. 587). With the MMPI, Bier tested five groups of male students, among which was a group of seminarians. He was interested in comparing the seminary group with three other professional groups and a college group enrolled in a liberal arts program. From the professions, he chose groups of medical, law, and dental students. Since his prime interest was to study the usefulness of a test standardized on the general population in seminary testing programs, he compared the seminarians with the other four groups. He found that the entire population of his study was a deviant group. Within this population, the seminary group, a very heterogeneous one from three religious orders and from diocesan seminaries, also from three parts of the country, was the most deviant. These are Bier's comments:

The evidence here presented confirms and extends what has previously been reported on the deviant tendencies of such college-educated populations. 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. This is indicated by the differences between the seminary and the other groups on the MMPI scales. If the .05 level of significance is accepted, 55 per cent of the differences between the seminary and other groups are significant; 40 per cent of such differences are significant at the .01 level. Of these statistically significant differences 80 per cent are in the direction of greater deviation, i.e. poorer adjustment, for the seminary group. In other words, the seminary group is the most deviant portion of an already deviant population (p. 593).

Because of his findings, Bier recommended that the MMPI be modified for a seminary population; Bier produced such a modified and abbreviated form. An obvious disadvantage to its use is that the mass of literature which has built up around the MMPI is not always applicable.



Wauck (1956) administered the Kuder Interest Inventory, the Ohio State Psychological Examination, the Group Rorschach, and the MMPI to 206 seminarians over a period of three years. He compared the results on the MMPI with a consensus rating of each of the 206 subjects. This rating was made by seven prefect-judges, peers of the group. All the raters agreed to a single score on each of the ten variables for each of the subjects tested. Wauck found an elevation of D, Mf, and Pt among the group of seminarians judged "better adjusted" according to the consensus rating and "careful clinical observation" (p. 65). Wauck's general observations about the "typical seminarian" are these:

The 'typical', well adjusted seminarian in this study may be described as being superior in intelligence, strongly interested in people and ideas, tending toward more normal anxiety, with insight and very good emotional control. He tends to have fewer pathological conflicts and basic immaturities in his personality than does his poorly adjusted classmate (p. 64).

... also tends to be relatively freer of morbid preoccupations, strong depressive feelings, and crippling anxiety. In a word, he is able to organize, mobilize, and direct his intellectual, volitional, and affective powers toward the goals of social achievement and personal happiness with a minimum of strain and dissatisfaction (p. 65).

Rice (1958) with a homogeneous population of 73 religious seminarians from one order, tested three null hypotheses. He stated that there would be no difference significant at the .05 level of confidence between his group and Bier's more heterogeneous group; that there would be no intra-group differences at the .05 level of confidence; that there would be no difference at the .05 level of confidence between his group and the Minnesota Male Normals used as the standardization group.

He found no significant intra-group differences. He did find significant differences, all elevations, between the performance of his group and the Bier

group. The elevations on scales 5 (Mf) and 6 (Pa) were significant at the .01 level of confidence. On scales 3 (Hy) and 4 (Pd) he found elevations significant at the .05 level. He also found significant differences, again elevations, between his group and the Minnesota Male Normal Group. At the .05 level of confidence, there were significant elevations on scales 2 (D) and 7 (Pt); at the .01 level on scales 3 (Hy), 4 (Pd), 5 (Mf), 6 (Pa), 8 (Sc), and 9 (Ma).

The MMPI profiles of his group were distinctly different with K correction added.

Without the K correction, the high points of the group profile were scales 5, 3, 6, 2, and 4 (in that order). With the K correction, the high points were scales 5, 7 & 8 (tied), 3 & 4 (tied), 6, 2, and 9 (in that order) (p. 74).

As a result, he suggested that K correction distorts the profile of a seminary population. His general conclusion was that if the MMPI is used, since there is no one "seminary profile," each seminary should construct its own norms.

Gorman (1961) wrote a descriptive thesis about a seminary population of 188 high school seniors in a diocesan seminary. He used the MMPI, Kuder Preference Record and Mooney Problem Check List. He compared the results of these tests with a faculty rating. He also divided his population into "high" and "low" groups. The average age of his group was 17.7 years.

He set about to test the following four hypotheses: 1) that this group of fourth year diocesan minor seminarians was a normally adjusted population; 2) that the judgement of the faculty would confirm this fact; 3) that a small number who showed poorer tendencies to adjustment could be distinguished by an

empirically chosen "cutting point"; 4) that this fourth year group would be essentially the same population as the fifth year group from the same seminary.

At the same time, McDonagh (1961) tested these four hypotheses in relation to the fifth year group of 135 students from the same seminary. The average age of the fifth year group was 18.75 years.

Gorman found that his entire group indicated a fine pattern of adjustment. When he compared the group with Goodstein's (1965), he found them lower on every scale except Sc. Gorman found the peaks of his group on the Pt and Sc scales. "This seems to agree partially with the findings of Wauck, Bier and Rice insofar as they say the typical seminarian scores higher on these scales" (p. 69).

McDonagh found the Pt scale to be the highest. He interprets this as indicating "... a somewhat anxious, tense, highly concerned population" (p. 53).

Both found the total population of their studies to be a homogeneous group, with difference partly attributable to age difference.

Grant (1967) in commenting on Gorman's use of the faculty ratings, suggests that "... Gorman may have placed a little too much emphasis on the faculty ratings." Since the faculty ratings judged only three out of the thirty-eight "highs" as poor risks, "... Gorman concluded that this confirmed the position that this 'high' group was not necessarily poorly adjusted. On the other hand, perhaps many of the 'high' group were actually poor risks for seminary life" (p. 46).

Sweeney (1964) compared the MMPI and Kuder Preference Record scores of 126 seminary students of a religious order who eventually persevered to perpetual

profession with those of 335 who did not. The tests were administered while the seminarians were in the year of study which precedes admission to noviceship. In all cases, the education level was 12th grade or above. Sweeney found that there was a significant difference between the two groups. The scores of those who did not persevere were elevated at at least the .02 level of confidence on the F scale, and on scales 4 (pd), 7 (Pt), and 8 (Sc) when the raw scores without K correction were used. Using the T scores with K correction, he found a significant elevation at the .05 level of confidence on scale 8 (Sc) only. Scale 7 (Pt) was close to the .05 level. He found no reliable cutting point in trying to distinguish the successful from the non-successful; neither did he find any correlation between the MMPI scores and a five-point faculty rating. His general conclusion is the following:

With the 461 seminarians who were the subjects of this 10 year report on a screening program, the MMPI indicates that those who persevere are notably more sociable and less compulsive than those who drop out of training. Moreover, in this population of 461 seminarians tested, over a 10 year period, the Kuder Preference Record does not show substantial differences of interests between successful candidates and those who fail to persevere, except that successful candidates have manifested somewhat more interest in computation area (p. 95).

Reindl (1965) described the personality pattern changes in female religious at various levels of training. She used as subjects 200 religious, members of one community. She used the MMPI because it has "... the advantage of being objectively scorable; it provides several scales, covers a wide range of personality factors. It lends itself to patterning, since the various clinical scales can be combined in a number of ways" (p. 5). Reindl did not find any marked increase in the scores in relation to a greater number of years in religious life; neither could she identify a typical personality pattern for any of the five various levels of religious life.

Rakowski (1965) tested 408 diocesan seminarians at college level with the Edwards Personal Preference Schedule. He hypothesized that these seminarians would differ significantly in their profiles from students of the normative college group. He found that the seminarians scored significantly higher than the college group in affiliation, achievement, succorance, abasement, nurturance, and aggression. They scored significantly lower in order, autonomy, intraception, dominance, and especially in hetero-sexuality. From these findings, Rakowski concluded that the "... seminarian population possesses its own preference profile" (p. 64).

La Farga (1965) conducted a comparative study of four Catholic college groups on the MMPI. There were 100 subjects involved, all unmarried, between the ages of 18 and 25. The four groups were 24 seminarians, 25 nuns, 27 men of two Catholic colleges, 24 women of two Catholic colleges. His conclusion in comparing the four groups is that the statistical differences between MMPI scores of religious and non-religious college students in the geographical area of his study are negligible.

Grant (1967) studied deliberate faking in the MMPI with a seminary population. He was interested in testing not only the L, F, and K validity scales, the nine original clinical scales and the social introversion scale, but also combinations of the validity scales for their usefulness in detecting faking on the MMPI. He also used linear combinations such as  $2L+K$ ,  $F-2L$ ,  $K+Pt$ ,  $K+Sc$ . He hoped to increase the usefulness of the MMPI by devising means of detecting faked profiles. The subjects were divided into two groups. Both groups took the group form of the MMPI twice within a period of a few days. With one group, the first testing was administered according to the instructions of the

Manual. For the second testing, some students were asked to put themselves in good light (called the "faking-good"), some in bad light (called the "faking-bad"). The second group was asked to fake on the first testing, and to follow the standard testing procedures in the second testing. Grant's conclusions follow:

One may conclude that subjects markedly change their scores when faking bad. Although faking-bad is easy enough to detect by the elevated scores, the following signs may be helpful in spotting such faking. On the validity scales, L and K T scores are about the same, that is 45; F T score is about 95; and the K-F index, about 9. The most obvious sign is the high F score. Although an F score as high as 16 might be indicative of behavioral disorder and not faking, an F score of 23 or over will most likely be indicative of faking-bad.

... In faking-bad, all the clinical scales will be elevated and over 65 with the exception of the Hy and Mf scales. The Hy and Mf scores will be the lowest. Very seldom will these scores be beyond 65. Faking-good is not as easy to detect. However, the following signs may be helpful. Both L and K T scores are elevated to about 65; F T score is invariably 50 (the mean honest F T score is closer to 54).

... On the clinical scales the following pattern appears on a faked good record. The scores on the Hs, D, Pd, Pt and Sc scales are between 50 and 55; Si is below 45; Hy, Mf and Ma average 57. Hence if, on a record, one spots Hy, Mf and Ma scores in the area of 57 with the remaining scales closer to 50 and an Si about 44, one may suspect dissimulation. The mean honest score on the Si scale for the 395 subjects was 53. For the faked performance, the mean is only 44. Therefore, the Si scale may be a good indicator of faking-good (p. 111).

Healy (1968) compared the results of the MMPI, EPPS and KPR as obtained from tests administered over a six year period to 778 seminarians. He broke the population into three subgroups: those who completed a two year seminary program, those who withdrew from the seminary voluntarily, and those who were asked to withdraw. He found that the greatest number of significant differences was between those who completed the two year period and those who with-

drew voluntarily. Eleven scales out of a total possible thirty-eight for the three tests showed significant differences. Between those who completed the two year program and those who were asked to withdraw, he found significant differences on six of the thirty-eight scales. Between the two withdrawal groups, he found only four scales which yielded significant differences.

Healy's findings regarding the MMPI are as follows: 1) Between the voluntary and involuntary withdrawals, the Sc scale was higher for the involuntary withdrawals and significant at the .05 level of confidence; 2) between those who completed the two year seminary program and those who withdrew voluntarily, the F and Pd scales were significantly higher at the .05 level of confidence for the ones who withdrew while Ma was significantly higher at the .01 level for the same group; 3) between the involuntary withdrawals and those who completed the two year seminary program, Sc was significantly higher for the involuntary withdrawals at the .01 level of confidence, and Ma was significantly higher for this group at the .05 level of confidence. Healy says this of his study:

Although previous research efforts generally did not differentiate between Completions and Withdrawals with great degrees of confidence, different trends were indicated. The results of the present research tend to support these previous findings and, as it has been demonstrated in a fairly large number of cases the design has yielded results which would support our accepting more nearly as real differences what previously were established as trends or tendencies as far as the subjects of this study are concerned and the three groups which have been defined (pp.45-46).

#### Longitudinal Studies

Murtaugh (1965) conducted a longitudinal study investigating the use of the MMPI and Kuder in predicting the future performance of seminarians for the diocesan priesthood. He retested a group of diocesan priests who, as seminar-

ians, had been tested by Wauck in 1953. Of the 206 subjects originally tested by Wauck, 146 were ordained to the diocesan priesthood. 90 of the ordained responded to Murtaugh's request for a retest as did 55 non-ordained. Murtaugh's premise was "... that a truly predictive instrument should have the power of discrimination" (p.4). In general, Murtaugh found that the statistics did not support the use of the Kuder and MMPI as predictors of future performance.

Within the ordained segment of his population, Murtaugh found that the retest scales were significantly higher at the .01 level of confidence on the K, Hy, and Ma scales. They were significantly lower at the .01 level of confidence on the F scale; they were also lower on the Pt scale at the .05 level of confidence. All other scales showed a slight increase, with the exception of the Mf scale which decreased slightly.

Murtaugh concluded as follows:

In conclusion, it appears that further research on the MMPI as a reliable predictor of performance must include, first, revision of the whole instrument by substitution of sufficient discriminatory items and adjustment scales which will correlate well with the peculiarities of the religious vocation and, secondly, experimentation with larger and less homogeneous populations. ... The positive but limited usefulness of the Kuder Preference as a predictor seems to support the opinion of D'Arcy (1962) and others that the Kuder be modified according to the peculiar needs of the religious vocation involved (p.64).

Garrity (1965) investigated the changes in personality and general ability as related to the various phases of sister formation. She used forty-three subjects for her study. Twenty were Juniors, in their fifth year of training, and twenty-three were Novices, in their second year of training. All had been tested at their entrance to the community. Garrity found no significant changes at the .05 level of confidence. The profiles of the retest showed



general tendencies to elevation and variability but nothing of any possible statistical meaning.

Hakenewerth (1966) studies the effect of religious life on the MMPI scores of religious brothers. He retested 80 religious brothers of one congregation who entered the novitiate between 1950 and 1959. At the time of entry, they had taken the MMPI as a routine of his congregation's pre-entry testing. At the time of the retest, all were active in the works of the congregation and had been active for from one to ten years. He divided the brothers into five subgroups, depending upon length of service to the congregation. A comparison was also made between judgements of superiors and the test results of those with unfavorable scores. The intention was to examine the usefulness of the MMPI as a predictor of performance in religious living.

Hakenewerth found the F, Hy, and Pt scales significantly higher at the .05 level of confidence on the retest. Ma and Sc were significantly higher at the .01 level of confidence. The Ma scale remained almost the same. He found no significant differences among the five subgroups. He found limited relationship between the judgement of superiors and the MMPI test results. He concluded:

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 situation stress of religious life which elevates certain scores (p.72).

Malone (1967) hypothesized that no significant personality changes would take place at Maryknoll seminary as a result of three years and some months of priestly training. He tested the hypothesis at the .05 level of confidence. His subjects were tested in their freshman year, and again in their senior year. He used two small groups, one of 18 seminarians and one of 23 seminarians. He found elevations on scales 8 (Sc), 4 (Pd), 7 (Pt), 3 (Hy), 9 (Ma), 6 (Pa), and 1 (Hs). These are ranked in descending order. Scale 8 (Sc) had six at 70 or above; scales 6 (Pa) and 1 (Hs) had two each at 70 or above.

Malone concludes:

Although the samples are small, from this study one may conclude that about 22% of the students, during their seminary life from freshman up to and including part of the senior year, will tend to be confused about their goals, experience inability to relate with their peers, feel anxious about sex matters, will be secretive and will be subject to day-dreaming and fantasy thinking (Sc). Moreover, there are closely related obsessive-compulsive items, doubts and unreasonable fears as well as excessive vacillation in making decisions (P5). It would be expected that some would experience antagonism towards authority and show unconventional and even aggressive behavior (p.33).

#### Age Studies

Actually, the influence of age on MMPI scores has not been very extensively studied. Bier found that in correcting for age differences there was a "... tendency for the scores of the older groups to be lowered and those for the youngest group to be raised" (p. 590). He suggested that this fact confirmed earlier findings which observed a definite tendency for higher scores at higher age levels. Some few studies have been located for this investigation which deal directly with age. Many authors comment on age (Gorman, Mc Donagh, Murtaugh, Rice, Grant and others); to what extent age really was a factor in the elevated scores they reported is not clear.

Meehl and Hathaway (1956) studied age as a factor, but their findings suggest more a socioeconomic interpretation of elevated scores than one of mere chronological age (p.39).

Hathaway and McKinley (1956) in writing about Scale 2 (D) have this to say: "Among the general normals there is an age difference with a clear tendency for a higher score at higher ages" (P. 80). At the time of their writing the authors were not willing to interpret this elevation. These same authors, in reporting on scale 7 (Pt) found that there was relatively little change with age (p. 85).

Calden and Hokanson (1959) used 160 subjects in their study of age as a factor in changing MMPI scores. The men were from a tuberculosis hospital, varying in age from 20 to 69. They found significant increases in Hs, D, and Si. The authors interpreted these increases as reflecting the increased hyponcondriachal, depressive, and introversive tendencies with advancing age.

Dahlstrom and Welsh (1960), in speaking of age differences state younger patients get scale peaks on 4 (Pd) and 8 (Sc), while older test subjects have higher peaks on scales 1 (Hs) and 2 (D). Their general conclusion about age and the MMPI follows: "The influence of age has not been studied very extensively as it affects MMPI responses" (p. 262).

Cantu, Day, Imboden and Cluff (1962) tested 137 male adults from five different age groups with the MMPI. Though they found no significant changes in scores with age, they did observe a trend to an elevated D score with increased age.

### Chapter III

#### Testing Instrument and Procedure

##### Testing Instrument

In this study, the Minnesota Multiphasic Personality Inventory has been used. No lengthy description of the MMPI is necessary. Simply stated, the MMPI is made up of 550 items. The testee answers "true," "false," or "cannot say" to each of these. As is clear from the number of studies already mentioned in this investigation, the MMPI has been used widely in the testing programs of seminaries and religious houses. Those who wish to read about the MMPI in great detail are advised to consult the following: An Atlas for the Clinical Use of the MMPI (Hathaway & Meehl, 1951), Basic Readings on the MMPI in Psychology and Medicine (Welsh & Dahlstrom, 1956), An MMPI Codebook for Counselors (Drake & Oetting, 1959), An MMPI Handbook (Dahlstrom & Welsh, 1960), and the revised edition of the Manual for the Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1967). An excellent summary of and description of the various scales can also be found in the doctoral dissertation of Grant.

In the Sixth Mental Measurements Yearbook (Buros, 1965), there is reference to the 1,394th study which has used the MMPI. The other 1,393 are referred to either in the Sixth Mental Measurements Yearbook or in those of previous years. Obviously there is much data available to help any investigator broaden his understanding of the MMPI.

What does seem important to this investigator is a summary of some of the advantages and disadvantages of the MMPI and other such tests. Perhaps future investigations can be served by this discussion.

There are certain great advantages to the use of the MMPI and some of the other paper-pencil type tests. In the case of the MMPI, administration is rather simple. The Manual (1967) mentions this fact. Though "... it should never be forgotten that the use of any personality measure is a professional action ... the administration of the MMPI does not require the presence of one who is specially trained in psychology" (p. 9). The authors of the MMPI also make this following observation in the Manual which seemingly would pertain to any testing situation:

The problems in a medical clinic and in a college testing program will be different, but no matter where the inventory is given, there is a chance that conditions of fatigue or strain may interfere with a subject's interest and efficiency (p. 15).

An awareness of this fact is necessary in any good testing program.

The Manual, regarding the validity of the test, has this to say: "The chief criterion of excellence was valid prediction of clinical cases as compared with the neuropsychiatric staff diagnosis rather than statistical measures of reliability and validity" (p. 8). One author, at least, sees this as a disadvantage to the MMPI. Adcock (1965) in writing of Hathaway and McKinley's approach to validity seems somewhat puzzled that the authors did not approach validity differently. He questions the whole idea of validity as based on the 60% correct prediction of new psychiatric patients in "... a population already selected." He continues:

It is quite in order to report the success of the test in doing this but unfortunately it is only too easy for people who quote the validity figures to lose sight of the qualifying circumstances. The authors warn that in an average population more of the deviant profiles may relate to normal persons than to persons requiring treatment, but this is not always remembered by the casual test user who has in mind a 60 per cent hit evaluation. It would be most inter-

esting to know just how many correct hits would be made in application of the test to a random sample of the general population. The information is vitally necessary if the test is to be used for general screening purposes as it often, in fact, is used (p. 315).

Lingoes (1965) suggests that the MMPI is not a good tool for screening purposes, since it requires so many complex decisions. For screening purposes, he prefers some simpler device. However, he does see great import to the MMPI. "As a clinical instrument used in conjunction with other tests and media of inference, the MMPI has a definite contribution to make and is unequalled" (pp. 316-317).

Lingoes has another warning about the use of the MMPI.

While there is no gainsaying the value of the MMPI in differentiating among individuals coming from normal and abnormal populations, there is much conflicting evidence as to the test's sensitivity in discriminating within the normal group itself (p. 317).

One observation about the use of the MMPI made by Gorman, by Wauck, by Adcock, and by others is that a good clinician be involved in interpreting the test results. Gorman states it this way:

The profile must be subjectively interpreted by the clinician in terms of his conception of the significance of the symptoms to the subject's self-concept, to the prognosis relative to the particular cultural milieu of the subject. ... Interpretation of high scores should always be modified by the knowledge that statistical deviation on one scale has not been validated relative to similar deviations on other scales. Experience has indicated that the more scores found to be elevated and the higher these scores, the more likely it is that the person is severely disturbed; however, there can be outstanding exceptions to this rule (pp. 40-41).

It is the trained clinician, with a very broad knowledge of the MMPI, who can best make inferences from the profile. As Gorman says, "Most of the men who speak authoritatively about the MMPI, including the authors, say this instrument is valuable more when we examine the patterns that show up rather

than any individual scale" (p. 39). It is the trained clinician, preferably one who has widely used the MMPI, who can evaluate the meaning of high scores and who is able to recognize patterns more readily.

Wauck, in commenting on the results of his study, observes:

The value of this finding on the MMPI is that it points out very well that the results which one obtains using the various paper-pencil personality tests are definitely dependent upon many factors, including the manner in which one uses them, the specialized population under consideration, the original purpose and standardization of the test, etc. It further emphasizes that such tests do not literally make judgements of themselves, but simply provide a catalog or enumeration of responses which must be interpreted or judged by a skilled clinician (1.65)

Finally, Adcock has this to say of the need of a skilled clinician:

All this points up the fact that, while the MMPI is an excellent tool for the skilled psychiatrist who has mastered its intricacies and has a due appreciation of the relevant statistical concepts, it can be highly dangerous in the hands of the casual worker who has seized upon it as one of the most reputable of personality tests and one free of the problem of subjective scoring (p. 315).

This investigation does not wish to discourage the use of the MMPI through these observations. It just seems that anyone who wishes to use the MMPI in a testing or screening program would want to be aware of these opinions. Certainly, the MMPI is one of the best, if not the best, of the paper-pencil type inventories. Hispnicus (1962) makes the following comment about the MMPI:

It should be noted that the tester in this instance, using paper and pencil tests and inventories only, is not content to ask the candidate one or just a few questions dealing with a single topic such as emotivity. Literally dozens of similarly worded questions will all bear down on obtaining one and the same personality score. In a word, the person being tested never commits himself to any category of traits by means of a single yes or no. He must have consistently responded to a whole series of queries, some phrased positively and some negatively, before he will be judged to have any particular trait in any particular degree or amount.

In this respect the paper and pencil tests are comparable to the more subtle tests used by trained clinical interviewers and projective testers. In this latter case a whole series of similar responses to ambiguous stimuli have to be made before any special tendency in the person tested could be judged to exist (pp. 70-71).

The MMPI seems to have the advantages of a good paper-pencil test plus the great advantage of a vast resource of literature about it. The reality is that as with all tests, there are advantages and disadvantages. The ideal test does not exist. Apropos to this is the observation of Drake and Oetting which deals with not only the limits of the test materials but also with the attitude of those using the test. In this instance, the authors speak of the use a counselor might make of test results. With little change, this description fits any test situation. To quote the authors:

The counselor, then, is faced with the knowledge that a prediction from a test is likely to be better than a random guess but at the same time that he is far more likely to be wrong than correct when making a prediction for an individual case. Since there appears to be no way to improve this situation statistically, the attitude he adopts in the use of prediction data becomes highly important. He cannot assume that he is going to be often correct, because he will often be wrong. Nor can he feel that he is going to be wrong every time, because he then makes no use of the test and hence does not improve on a random guess. His wisest course when making a prediction or diagnosis would seem to lie in regarding the prediction as a hypothesis, a tentative statement that some event might take place, or that something might be true concerning the individual's adjustments or characteristics. The prediction is a guess, but not a random guess. It has a basis in past experience, frequency tables, and so on. The more valid the observations, psychometric or clinical, the more confidence he may have in the guess. Regardless of how low the degree of validity may be, the method or device should be used until some new method or device or refinement having greater validity is developed. Throwing away instruments or methods because they do not measure up to some arbitrary index of validity when there are no better instruments or methods available means that the counselor is returning to random guessing (p. 6).

Some authors, in accord with Bier, have suggested the elimination of certain items from the MMPI for seminary populations. This investigator feels



that this would be a mistake. Since in any event the need of an expert clinical evaluation is necessary, and since there is so much literature available about the MMPI as now constructed, it seems that such a change would be more of a disadvantage than an advantage. Wauck, among others, commented about such an elimination of items or other changes.

In personal conversation in the Spring of 1954, Starke Hathaway, the co-author of the MMPI assured the present writer most emphatically that he did not believe that the approach to the adaptation of the MMPI to special groups and populations through item changes and/or restandardization to be necessary or useful. He cautioned that one must always take the special nature of any given population into account when interpreting test results with the MMPI, but beyond that saw no special need for modification or revision. His attitude, of course, presupposes an essential faith in the validity of the MMPI as a test measure of personal adjustment (p. 3).

There is another limit of paper-pencil inventories which any investigator should be aware of. Wauck discussed this limit in his work. Each investigator should question whether or not the one taking a personality paper-pencil inventory has sufficient self-knowledge, and if he does, does he have a sincere desire to reveal himself as accurately as possible. Such critical judgments necessitate at least the basic awareness that some subjects may be lacking in sufficient self-knowledge and sincerity.

A final serious controversy which surrounds the MMPI is that regarding the methodology of interpretation. Some authors hold that the MMPI is best interpreted according to "response sets" rather than in terms of content. In a well documented and clearly written work, Block (1964) refutes the general claims of the "response-set-group." He summarizes the intent of his book this way: "It will be argued that the beleaguered MMPI, though not an optimal personality inventory, is by no means as innocent of psychological meaning as response-set adherents have suggested."

Block's work seems to be an important one in the history of the MMPI. His contribution is apparently interpreted as of this import by some experts. The Challenge of Response Sets was accepted by Appleton-Century-Crofts as recipient of the 1964 Century Psychology Series Award. This award describes itself as granted to a "distinguished manuscript" which provides a "significant contribution to the field of psychology." Whether or not this judgment is accurate, Block's work does offer some help regarding the MMPI.

Among general comments the author makes about the MMPI is the following: "I believe the analyses reported in this monograph support rather well the MMPI as initially conceived and traditionally employed" (p. 119). Though the author suggests four kinds of changes to improve the MMPI and other like personality inventories (cf. p. 120), he is generally enthused about the MMPI as conceived of and interpreted by its authors.

One area of suggestions Block makes centers on the strengthening of the criteria for scale validation. Even here, though the author does suggest some change, he seems basically satisfied with the MMPI. "The validation of a scale is a process involving spiraling, reciprocal interplay between scale and criterion, theory and empiricism. On balance, I believe the MMPI has measured up well" (p. 129).

One of the advantages to the "response-set-controversy" is the long, hard look which Block and others have taken at the MMPI. This is Block's feeling and conviction about what has resulted from his work. In his words, "A salutary contribution of the 'response-set-controversy' surrounding the MMPI is the far greater knowledge we now enjoy of the internal correlational structure of its scales."

## Procedure

The subjects (N=37) of this study were first tested during their seminary training by Gorman in March of 1961. The details of the procedure can be found in Gorman's study, pages 61 and the following. In summary, the young men were in their fourth year of the minor seminary training. They were students for the diocesan priesthood in a large, Midwestern archdiocese. The total number tested in 1961 was 188. The booklet form of the MMPI was used, and scoring was done by Testcor of Minneapolis, Minnesota.

The second testing was again administered by Gorman. It took place in April of 1967. Of the original 188, 41 were retested at that time. Some of procedures involved in the first testing were not necessary the second time. The subjects already had some experience with psychological tests. In general, Gorman followed what the authors of the test suggest in the Manual (1967) on page 9.

In summary, the MMPI should be presented to the subject as a serious and important undertaking. Assurance should be given that his responses will be used for his own benefit. This attitude, if effectively communicated, will help immeasurably in enlisting the full cooperation of most subjects. A few may require additional reassurance or further clarification of the intended use of the results. If possible, frank replies should be made; evasion and shifting of responsibility should be avoided.

Through the courtesy of Gorman, McDonagh, and Healy, this investigator was allowed to examine the results of the two testings. The forty-one profiles of those who had been retested were pulled from the files. Since the files were coded, and since each student could be identified by the code number, the profiles of these 41 were pulled from the original testing results which were filed in the individual subject's folder. T scores for the valid-

ity scales and the clinical scales were copied. On the five clinical scales which add K correction, it was these corrected scores that were copied.

The investigator then entered the scores on IBM summary sheets. Scores were rechecked three times to avoid copyist's errors. The data was then turned over to Statistical Tabulating Corporation which ran data through one of their research programs.

Four subjects of the 41 who had been tested in March of 1961 and retested in April of 1967 were dropped from this investigation. The investigator decided to drop four from the study because of elevated T scores on one or more validity scales. A statistician concurred in this decision. Two of those dropped had T scores of 70 or more on two of the validity scales in the first testing. In both of these instances, the clinical scales also had some extremely high and some extremely low T scores. The other two were eliminated because of high T scores on one of the validity scales in the second testing. One subject had a K score of 70; the other had an L score of 72.

It is interesting to note that the two who had such elevated scores on many of the scales, both validity and clinical, in the first testing, produced profiles in the second testing which appeared well within the normal range. In these two cases, there are results of a third testing filed in the subject's coded folder. This third testing had taken place about 1½ years after the first testing. The presence of this information suggested to the investigator that the subjects involved had been greatly helped during those years of their priestly formation. If this is true, perhaps this help was offered partly because of the extremely high scores on their first testing. In its own way, this gives proof of the help that a testing program can offer seminarians.

In rejecting four of the subjects, this study is following the norms as expressed by the authors of the test and others. Anastasi (1968) in discussing the MMPI says this: "Any score of 70 or higher ... is generally taken as the cutoff point for the identification of pathological deviation" (p. 443). Since this study hopes to represent those changes, if any, which occur in a normal seminary population during this six year period of seminary training, these four subjects were dropped from the study. The author does not suggest that there is any nor that there was any abnormality present. The author was advised that every doubtful profile, on grounds of validity, should be dropped if the statistical analysis of the data is to have validity.

It is of interest that in the one to one relationship the validity scales can offer positive help to the counselor in counseling a client. As Drake and Oetting say:

In general, the validity scales provide highly useful devices in the forming of hypotheses about the test-taking attitude of the counselee. When they are extreme, and suggest an attitude that might lead to invalidity of the test, the profile may still give some information to the counselor; but it must be interpreted with due regard to the heightened uncertainty of the analysis. Moderate elevations probably do not change the interpretation of the rest of the profile particularly but may add some hypotheses to those suggested by the rest of the profile. Even when a profile is judged to be invalid, the attitude leading to the invalidity may be suggested by these scales and valuable hypotheses may be drawn therefrom (p. 33).

In view of the great changes which took place in the profiles of two of the four who were rejected by this study, and in view of what Drake and Oetting have to say about the use of the MMPI in the counselor-counselee relationship, what McDonagh said makes excellent sense for any seminary testing program.

"The results should not be used as the major argument for retaining or dismissing a student" (p. 2).

## Chapter IV

### Description and Statistical Analysis of Results

#### Description

Before the statistical analysis is presented, a group of Tables is given to describe the results of the two testings in terms of T scores. A reader is advised to examine these Tables I thru VII on pages 34 thru 42 before continuing to read.

The main purpose of these tables is to use them as indications of what might be found statistically to be the changes, if any, between the two testings. A second very important reason for these tables is to make available the data accumulated through this investigation. Some seminary authorities or those in religious houses who are responsible for setting up testing or screening procedures and programs might wish to use the data for further analysis.

Table I (p.34) reports the differences of T score point values on the validity scales as measured by comparing the second testing with the first testing. The direction of change is indicated by the plus or minus sign. An equal sign indicates a same T score on both testings. Minus indicates a lesser T score by that numerical value; plus indicates a greater T score by that numerical value.

Table II (pp. 35 & 36) reports the changes in T score point values on the clinical scales.

Table III (pp. 37 & 38) gives the T scores of each subject on the first testing. An interested investigator can easily plot the profiles of any or all of the 37 subjects on both testings with the use of these tables.

TABLE I

## T Score Point Changes on Validity Scales

Testing #2 in Comparison to Testing #1

| Subject # | L   | F  | K   | Subject # | L   | F   | K   |
|-----------|-----|----|-----|-----------|-----|-----|-----|
| 1.        | +6  | -3 | -9  | 20.       | +8  | -4  | +24 |
| 2.        | -4  | -6 | +7  | 21.       | +7  | -5  | +5  |
| 3.        | +10 | +2 | +18 | 22.       | +14 | =   | +15 |
| 4.        | -9  | =  | +9  | 23.       | +14 | +5  | +7  |
| 5.        | +5  | -4 | +6  | 24.       | =   | =   | +10 |
| 6.        | -3  | =  | =   | 25.       | =   | -2  | +9  |
| 7.        | +17 | -9 | +10 | 26.       | +8  | -4  | +7  |
| 8.        | +1  | =  | -2  | 27.       | -3  | -4  | +2  |
| 9.        | -7  | -5 | =   | 28.       | -4  | +4  | =   |
| 10.       | +16 | -5 | +17 | 29.       | +4  | +2  | +7  |
| 11.       | +3  | -4 | +11 | 30.       | -13 | +5  | +7  |
| 12.       | +3  | -9 | +9  | 31.       | -6  | -3  | +11 |
| 13.       | -6  | +2 | +2  | 32.       | +3  | -10 | +20 |
| 14.       | -6  | =  | +8  | 33.       | +10 | +9  | +18 |
| 15.       | =   | -9 | +5  | 34.       | =   | -5  | +4  |
| 16.       | -2  | =  | +3  | 35.       | +8  | +2  | +21 |
| 17.       | +13 | =  | +9  | 36.       | +10 | +4  | +5  |
| 18.       | +4  | +4 | +9  | 37.       | -3  | +2  | -13 |
| 19.       | +6  | +4 | +15 |           |     |     |     |

TABLE II

T Score Point Changes on Clinical Scales

Testing #2 in Comparison to Testing #1

| Subject # | Hs  | D   | Hy  | Pd  | Mf  | Pa  | Pt  | Sc  | Ma  | Si  |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1.        | -7  | +17 | +11 | -8  | +6  | +18 | -5  | -14 | -10 | +6  |
| 2.        | -5  | -10 | +2  | -3  | =   | +6  | -2  | +6  | +5  | +1  |
| 3.        | +2  | -10 | +8  | +7  | +6  | =   | -2  | +9  | =   | -10 |
| 4.        | +8  | +7  | +7  | +19 | +1  | +3  | +17 | +14 | -5  | +12 |
| 5.        | -10 | +3  | +2  | +9  | +11 | +8  | +2  | -13 | +3  | -3  |
| 6.        | -7  | +14 | +8  | -2  | +14 | +9  | +17 | +4  | -2  | -2  |
| 7.        | +3  | -7  | +18 | -5  | +8  | -15 | =   | -16 | +15 | -13 |
| 8.        | -5  | +5  | +2  | +9  | +23 | +12 | -10 | -6  | +10 | -8  |
| 9.        | =   | -17 | =   | -5  | +2  | -15 | =   | +2  | +10 | -1  |
| 10.       | -2  | -8  | -9  | -7  | +2  | -9  | -23 | -9  | -5  | +3  |
| 11.       | +2  | -3  | +11 | +1  | +6  | +9  | +6  | +6  | +3  | -6  |
| 12.       | -8  | -36 | -1  | +3  | -12 | -9  | -16 | +6  | +2  | -12 |
| 13.       | -2  | -12 | +5  | -5  | +4  | =   | -6  | -10 | +5  | -13 |
| 14.       | +5  | +5  | -2  | +14 | +4  | =   | +12 | +7  | -5  | +10 |
| 15.       | =   | -3  | +8  | =   | +2  | +5  | +6  | -9  | -12 | -5  |
| 16.       | -3  | +5  | -4  | -2  | +13 | -9  | +5  | -6  | -10 | +5  |
| 17.       | +8  | +2  | +11 | +2  | +10 | +18 | +29 | +6  | +18 | +8  |
| 18.       | -5  | -12 | +5  | +2  | +35 | +13 | +2  | =   | +22 | +2  |
| 19.       | +18 | +26 | +13 | +14 | +14 | +30 | +29 | +15 | +2  | =   |



TABLE II (continued)

## T Score Point Changes on Clinical Scales

## Testing #2 in Comparison to Testing #1

| Subject # | Hs  | D   | Hy  | Pd  | Mf  | Pa  | Pt  | Sc  | Ma  | Si  |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 20.       | +11 | -5  | +11 | +7  | +16 | +18 | +2  | -2  | -5  | -4  |
| 21.       | -3  | +5  | +8  | +2  | +4  | +15 | +10 | +11 | +17 | +2  |
| 22.       | +10 | =   | +20 | +18 | +8  | +18 | +2  | +12 | +33 | =14 |
| 23.       | +13 | +12 | +7  | +14 | +4  | =   | +8  | +19 | +23 | +7  |
| 24.       | =   | =12 | +11 | +10 | +18 | =   | +12 | +14 | +40 | -3  |
| 25.       | +15 | +7  | +18 | +16 | +27 | +9  | +33 | +23 | +5  | +11 |
| 26.       | =   | +8  | +7  | +7  | +4  | +17 | +2  | =   | +5  | -19 |
| 27.       | +2  | -15 | +4  | +5  | +4  | +12 | +6  | +5  | +5  | =   |
| 28.       | +21 | -7  | +22 | +7  | +2  | +6  | +14 | +3  | +45 | -7  |
| 29.       | +13 | -7  | -1  | -4  | +8  | -9  | +16 | +8  | +10 | -5  |
| 30.       | +2  | -9  | +11 | +3  | +22 | +15 | +8  | +10 | +17 | -9  |
| 31.       | +8  | +5  | +20 | +16 | +4  | =   | +26 | +27 | +13 | -2  |
| 32.       | +3  | -7  | +18 | +16 | -2  | +6  | -8  | -4  | +5  | -9  |
| 33.       | +3  | +12 | +9  | +21 | +18 | +12 | +6  | +2  | +20 | -14 |
| 34.       | +5  | +2  | +20 | +10 | +5  | +18 | =   | -10 | +5  | -11 |
| 35.       | +15 | +2  | +16 | +24 | +8  | +6  | +10 | +8  | +28 | -10 |
| 36.       | =   | +12 | +13 | +3  | +12 | -3  | -2  | +5  | +27 | -6  |
| 37.       | -8  | +5  | -3  | +3  | +4  | -3  | -2  | -8  | +25 | +14 |

TABLE III

## T Scores on First Testing

| Subj. | L  | F  | K  | Hs | D  | Hy | Pd | Mf | Pa | Pt | Sc | Ma | Si |
|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1.    | 40 | 58 | 55 | 59 | 34 | 42 | 65 | 82 | 47 | 69 | 69 | 58 | 56 |
| 2.    | 50 | 50 | 61 | 57 | 58 | 58 | 53 | 69 | 53 | 62 | 55 | 48 | 43 |
| 3.    | 36 | 48 | 46 | 47 | 58 | 56 | 50 | 59 | 62 | 62 | 48 | 50 | 48 |
| 4.    | 53 | 50 | 59 | 59 | 53 | 60 | 55 | 73 | 53 | 56 | 55 | 58 | 50 |
| 5.    | 35 | 62 | 51 | 59 | 43 | 62 | 60 | 69 | 65 | 62 | 87 | 65 | 42 |
| 6.    | 43 | 55 | 51 | 59 | 51 | 47 | 55 | 57 | 50 | 56 | 59 | 55 | 54 |
| 7.    | 36 | 62 | 49 | 59 | 65 | 51 | 62 | 65 | 65 | 71 | 67 | 45 | 68 |
| 8.    | 43 | 53 | 57 | 57 | 41 | 58 | 53 | 51 | 50 | 60 | 57 | 48 | 52 |
| 9.    | 60 | 55 | 66 | 57 | 65 | 62 | 53 | 55 | 59 | 50 | 51 | 45 | 54 |
| 10.   | 40 | 60 | 51 | 59 | 68 | 67 | 64 | 63 | 62 | 81 | 78 | 53 | 55 |
| 11.   | 43 | 48 | 53 | 47 | 42 | 51 | 56 | 59 | 47 | 50 | 57 | 70 | 46 |
| 12.   | 50 | 55 | 57 | 65 | 80 | 65 | 50 | 67 | 65 | 66 | 59 | 48 | 52 |
| 13.   | 56 | 46 | 64 | 59 | 56 | 60 | 60 | 65 | 53 | 62 | 63 | 58 | 53 |
| 14.   | 50 | 55 | 40 | 39 | 60 | 58 | 34 | 55 | 44 | 40 | 46 | 53 | 56 |
| 15.   | 40 | 55 | 44 | 49 | 44 | 47 | 53 | 63 | 39 | 40 | 53 | 60 | 55 |
| 16.   | 46 | 53 | 48 | 52 | 63 | 55 | 57 | 61 | 59 | 64 | 67 | 63 | 67 |
| 17.   | 43 | 48 | 55 | 54 | 63 | 56 | 55 | 51 | 41 | 52 | 63 | 45 | 55 |
| 18.   | 40 | 46 | 48 | 52 | 46 | 44 | 53 | 55 | 41 | 50 | 48 | 48 | 41 |
| 19.   | 40 | 46 | 51 | 39 | 32 | 49 | 41 | 51 | 35 | 40 | 42 | 53 | 46 |
| 20.   | 36 | 50 | 42 | 41 | 46 | 47 | 50 | 45 | 44 | 52 | 53 | 60 | 41 |

TABLE III (Continued)

## T Scores on First Testing

| Subj. | L  | F  | K  | Hs | D  | Hy | Pd | Mf | Pa | Pt | Sc | Ma | Si |
|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 21.   | 46 | 60 | 44 | 44 | 48 | 47 | 39 | 67 | 47 | 56 | 48 | 43 | 60 |
| 22.   | 36 | 50 | 53 | 44 | 48 | 40 | 46 | 49 | 41 | 56 | 51 | 40 | 55 |
| 23.   | 36 | 48 | 48 | 39 | 46 | 44 | 43 | 51 | 67 | 50 | 50 | 35 | 56 |
| 24.   | 46 | 50 | 45 | 47 | 53 | 47 | 36 | 53 | 53 | 40 | 36 | 30 | 47 |
| 25.   | 36 | 60 | 35 | 26 | 44 | 35 | 39 | 51 | 47 | 44 | 48 | 60 | 49 |
| 26.   | 36 | 50 | 46 | 44 | 48 | 44 | 36 | 69 | 50 | 50 | 46 | 45 | 65 |
| 27.   | 56 | 50 | 66 | 47 | 51 | 56 | 48 | 63 | 50 | 46 | 48 | 45 | 40 |
| 28.   | 50 | 44 | 53 | 49 | 60 | 56 | 53 | 57 | 50 | 46 | 48 | 33 | 51 |
| 29.   | 36 | 48 | 48 | 34 | 46 | 46 | 57 | 53 | 65 | 48 | 61 | 58 | 51 |
| 30.   | 53 | 50 | 59 | 52 | 48 | 47 | 57 | 39 | 44 | 48 | 53 | 58 | 44 |
| 31.   | 56 | 53 | 57 | 44 | 34 | 49 | 53 | 61 | 65 | 38 | 44 | 50 | 39 |
| 32.   | 43 | 58 | 48 | 59 | 60 | 60 | 53 | 63 | 50 | 77 | 67 | 68 | 49 |
| 33.   | 40 | 46 | 44 | 49 | 32 | 47 | 36 | 51 | 44 | 46 | 51 | 45 | 51 |
| 34.   | 36 | 58 | 36 | 39 | 56 | 36 | 36 | 73 | 47 | 60 | 71 | 58 | 66 |
| 35.   | 36 | 53 | 40 | 34 | 39 | 40 | 43 | 57 | 44 | 54 | 59 | 55 | 47 |
| 36.   | 36 | 44 | 61 | 52 | 34 | 47 | 50 | 51 | 53 | 52 | 50 | 38 | 40 |
| 37.   | 56 | 48 | 66 | 52 | 46 | 58 | 50 | 59 | 56 | 54 | 61 | 50 | 40 |

TABLE IV

Peak Scales of Each Subject on Both Testings

| Subject # | First Testing   | Second Testing  |
|-----------|-----------------|-----------------|
| 1.        | Mf, Pt, Sc      | Mf, Pa, Pt      |
| 2.        | Mf, Pt, D, Hy*  | Mf, Sc, Hy, Pt* |
| 3.        | Pa, Pt, Mf      | Mf, Hy, Pa      |
| 4.        | Mf, Hy, Hs      | Pd, Mf, Pt      |
| 5.        | Sc, Mf, Pa, Ma* | Mf, Sc, Pd      |
| 6.        | Hs, Sc, Mf      | Pt, Mf, D       |
| 7.        | Pt, Si, Sc      | Mf, Pt, Hy      |
| 8.        | Pt, Hy, Hs, Sc* | Mf, Pd, Hy      |
| 9.        | D, Hy, Pa       | Hy, Mf, Hs      |
| 10.       | Pt, Sc, D       | Sc, Mf, D       |
| 11.       | Ma, Mf, Sc      | Ma, Mf, Sc      |
| 12.       | D, Mf, Pt       | Hy, Hs, Pa      |
| 13.       | Mf, Sc, Pt      | Mf, Hy, Ma      |
| 14.       | D, Hy, Si       | Si, Mf, D       |
| 15.       | Mf, Ma, Si      | Mf, Hy, Pd      |
| 16.       | Si, Sc, Pt      | Mf, Si, Pt      |
| 17.       | D, Sc, Hy       | Pt, Sc, Hy      |
| 18.       | Mf, Pd, Hs      | Mf, Ma, Pa      |
| 19.       | Ma, Mf, Hy      | Pt, Hy, Mf, Pa* |

\* - Last two scores were equal

TABLE IV (continued)

Peak Scales of Each Subject on Both Testings

| Subject # | First Testing | Second Testing  |
|-----------|---------------|-----------------|
| 20.       | Ma, Sc, Pt    | Pa, Mf, Hy      |
| 21.       | Mf, Si, Pt    | Mf, Pt, Pa, Si* |
| 22.       | Pt, Si, Sc    | Ma, Pd, Sc      |
| 23.       | Pa, Si, Mf    | Sc, Pa, Si      |
| 24.       | Mf, D, Pa     | Mf, Ma, Hy      |
| 25.       | Ma, Mf, Sc    | Mf, Pt, Sc.     |
| 26.       | Mf, Pa, Pt    | Mf, Pa, D       |
| 27.       | Mf, Hy, D     | Mf, Pa, Hy      |
| 28.       | D, Mf, Hy     | Hy, Ma, Hs      |
| 29.       | Pa, Sc, Ma    | Sc, Ma, Pt      |
| 30.       | Ma, Pd, Sc    | Ma, Sc, Mf      |
| 31.       | Pa, Mf, Pd    | Sc, Hy, Pd      |
| 32.       | Pt, Ma, Sc    | Hy, Ma, Pd, Pt* |
| 33.       | Mf, Sc, Si    | Mf, Ma, Pd      |
| 34.       | Mf, Sc, Si    | Mf, Pa, Ma      |
| 35.       | Sc, Mf, Ma    | Ma, Pd, Sc      |
| 36.       | Pa, Pt, Hs    | Ma, Mf, Sc      |
| 37.       | Sc, Mf, Hy    | Ma, Mf, Hy      |

\* - Last two scores were equal

TABLE V

Number of Times Each Clinical Scale Appeared  
in Peak Scores of Both Testings

| Scale | First Testing | Second Testing |
|-------|---------------|----------------|
| Hs    | 5             | 3              |
| D     | 9             | 9              |
| Hy    | 9             | 17             |
| Pd    | 3             | 9              |
| Mf    | 24            | 28             |
| Pa    | 9             | 11             |
| Pt    | 16            | 12             |
| Sc    | 20            | 13             |
| Ma    | 10            | 14             |
| Si    | 9             | 4              |

TABLE VI

Rank Order of Clinical Scales on Both Testings

First Testing Mf, Sc, Pt, Ma, D, Hy, Pa, Si, Hs, Pd

Second Testing Mf, Hy, Ma, Sc, Pt, Pd, Pa, D, Si, Hs

TABLE VII

Number of T Scores Which Increased, Decreased,  
Remained the Same on Each Scale

| Scale | Increased | Decreased | Remained Same |
|-------|-----------|-----------|---------------|
| L     | 21        | 12        | 4             |
| F     | 12        | 17        | 8             |
| K     | 31        | 3         | 3             |
| Hs    | 20        | 12        | 5             |
| D     | 19        | 17        | 1             |
| Hy    | 30        | 6         | 1             |
| Pd    | 27        | 9         | 1             |
| Mf    | 34        | 2         | 1             |
| Pa    | 23        | 8         | 6             |
| Pt    | 24        | 10        | 3             |
| Sc    | 23        | 12        | 2             |
| Ma    | 28        | 8         | 1             |
| S1    | 12        | 23        | 2             |

Table IV (pp. 39 & 40) presents the triad of peak scales for each subject on both testings.

Table V (p. 41) reports the number of times each clinical scale appeared in the triad of peak scores on both testings.

Table VI (p. 41) gives the rank order of the clinical scales as measured by this triad of peak T scores.

Table VII (p. 42) gives the number of T scores which increased, decreased or remained the same on each scale.

Some observations which might be of interest are these:

1. Three subjects increased on all scales in the second testing with the exception of one on which in each case the T score remained the same. Subject #17 increased on all scales except the F scale; subject #23 increased on all scales except the Pa scale; and subject #19 increased on all scales except the Pa scale.
2. Another four subjects either increased on all scales or remained the same with the exception of only one scale each. In three of these instances, those of subjects #22, #33 and #35, the only decrease was on the Si scale; the fourth, subject #25, decreased on the F scale only.
3. The subject whose scores decreased on the greatest number of scales was subject #10. All scores decreased except on scales, L, K, Mf and Si. Second to this in the number of decreased scales is subject #12. All scores decreased except on scales L, K, Pd, Sc and Ma.
4. Only subject #28 scored outside the "normal range" on the Hs scale. He had a 70 on the second testing. On the D scale, subject #12 had an 80 on the first testing. On the Hy scale, subject #28 and subject #32 each had



a 78 on the second testing. On the Pd scale, subject #4 had a 74 on the second testing. On the Mf scale, subject #1 had an 82; subject #4 had a 73, and subject #34 had a 73, all on the first testing. On the Mf scale in the second testing subject #1 had an 88; subject #4 had a 74, subject #5 had an 80, subject #6 had a 71; subject #7 had a 73, subject #8 had a 74; subject #16 had a 74; subject #18 had a 90; subject #21 had a 71, subject #24 had a 71; subject #25 had a 78; subject #26 had a 73, and subject #34 had a 78. On the Pa scale, subject #5 had a 73 on the second testing. On the Pt scale, subject #7 had a 71; subject #10 had an 81, and subject #32 had a 77, all on the first testing. On the Pt scale in the second testing, subject #4 had a 73; subject #6 had a 73; subject #7 had a 71; subject #17 had an 81, and subject #25 had a 77. On the Sc scale subject #5 had an 87; subject #10 had a 78; subject #34 had a 71, all on the first testing. On the Sc scale in the second testing, subject #5 had a 74; subject #25 had a 71, and subject #31 had a 71. On the Ma scale, subject #11 had a 70 and subject #24 had a 30, both on the first testing. on the Ma scale in the second testing, subject #11 had a 73; subject #18 had a 70; subject #22 had a 73; subject #24 had a 70; subject #28 had a 78; subject #30 had a 75; subject #32 had a 73; subject #35 had an 83, and subject #37 had a 75. On the Si scale, subject #16 had a 72 on the second testing.

These observations, plus a quick examination of the scatter of plus and minus signs on Table I would suggest that significant differences will be found between the first and second testings and that, in general, the differences will be elevations on the second testing. Table VII gives further

reason to suspect such changes. Out of 481 scores, only 139 decreased on the second testing, while 304 increased and 38 remained the same.

Table IV, presenting the triads of the peak clinical scales in both testings, gives some hint of where changes might be found. Though there seems to be no basic pattern at first glance, the following observations might be helpful:

1. Only subject #11 peaked on the same three scales in both testings.
2. Only two subjects peaked at D, Mf, Pt, which has been observed at times as a triad of peak scores for seminary populations. Subject #12 peaked at D, Mf, Pt, in that order, on the first testing; subject #6 peaked at Pt, Mf, D, in that order, on the second testing.

These observations, plus the facts reported on Tables V, VI and VII, suggest that there will be significant changes in the seminarian profile on at least the K, Hy, Pd, Mf and Ma scales. The data presented on Table V suggests also that the group had become a more homogeneous group by the time of the second testing.

#### Statistical Analysis

No detailed discussion of the statistical analysis of the data is necessary in order to reject or accept the null hypothesis in relationship to each of the validity and clinical scales. The primary purpose of this investigation is to report on those changes, if any, which took place in a group of 37 seminarians during a six year period of diocesan seminary living.

Table VIII (p. 46) gives the test and the retest means for each of the scales. It also gives the "t" values for the difference between the test and retest means. Finally, it indicates the direction of change.

TABLE VIII

t Values for Difference Between  
Test-Retest Means on MMPI Scales

| Scales                    | Test Mean | Retest Mean | t          |
|---------------------------|-----------|-------------|------------|
| <b>A. Validity Scales</b> |           |             |            |
| L                         | 43.6216   | 46.7567     | 2.6179 **  |
| F                         | 52.0270   | 50.7838     | 1.6693     |
| K                         | 51.2703   | 59.0000     | 6.0879 *** |
| <b>B. Clinical Scales</b> |           |             |            |
| 1. Hs                     | 49.2973   | 52.0540     | 2.1427 *   |
| 2. D                      | 50.2973   | 49.5946     | 0.3728     |
| 3. Hy                     | 51.1892   | 59.5946     | 6.5539 *** |
| 4. Pd                     | 50.1081   | 56.0811     | 4.2826 *** |
| 5. Mf                     | 58.9730   | 67.4805     | 5.8748 *** |
| 6. Pa                     | 51.5405   | 57.3784     | 3.3558 *** |
| 7. Pt                     | 54.3243   | 59.8378     | 2.7950 *** |
| 8. Sc                     | 55.9189   | 58.7027     | 1.6190     |
| 9. Ma                     | 51.1892   | 61.0270     | 4.3134 *** |
| 10. Si                    | 50.9189   | 48.0000     | 2.1269 *   |

\* = Significant at .05 level

\*\* = Significant at .02 level

\*\*\* = Significant at .01 level

TABLE IX

Standard Deviations on Both Testings

| Scales                    | Test    | Retest  |
|---------------------------|---------|---------|
| <b>A. Validity Scales</b> |         |         |
| L                         | 7.5106  | 5.4285  |
| F                         | 5.1343  | 3.8090  |
| K.                        | 8.1774  | 8.1343  |
| <b>B. Clinical Scales</b> |         |         |
| Hs                        | 8.9346  | 6.7039  |
| D                         | 11.0902 | 9.0476  |
| Hy                        | 8.0962  | 7.2628  |
| Pd                        | 8.4584  | 7.3007  |
| Mf                        | 8.7702  | 8.3455  |
| Pa                        | 8.6140  | 6.7304  |
| Pt                        | 10.3443 | 8.6395  |
| Sc                        | 10.3800 | 8.0100  |
| Ma                        | 9.4277  | 9.8107  |
| Si                        | 7.8365  | 10.3118 |

TABLE X  
Variance on Both Testings

| Scales             | Test     | Retest   |
|--------------------|----------|----------|
| A. Validity Scales |          |          |
| L                  | 56.4097  | 29.4688  |
| F                  | 26.3611  | 14.5087  |
| K                  | 66.8698  | 66.1667  |
| B. Clinical Scales |          |          |
| Hs                 | 79.8264  | 44.9427  |
| D                  | 122.9930 | 81.8594  |
| Hy                 | 65.5486  | 52.7483  |
| Pd                 | 71.5451  | 53.3003  |
| Mf                 | 76.9167  | 69.6476  |
| Pa                 | 74.2014  | 45.2986  |
| Pt                 | 107.0052 | 74.6406  |
| Sc                 | 107.7448 | 64.1597  |
| Ma                 | 88.8819  | 96.2500  |
| Si                 | 61.4115  | 106.3333 |

TABLE XI

Standard Error of the Mean on Both Testings

| Scales             | Test   | Retest |
|--------------------|--------|--------|
| A. Validity Scales |        |        |
| L                  | 1.2347 | 0.8924 |
| F                  | 0.8441 | 0.6262 |
| K                  | 1.3444 | 1.3373 |
| B. Clinical Scales |        |        |
| Hs                 | 1.4688 | 1.1021 |
| D                  | 1.8232 | 1.4874 |
| Hy                 | 1.3310 | 1.1940 |
| Pd                 | 1.3906 | 1.2002 |
| Mf                 | 1.4418 | 1.3720 |
| Pa                 | 1.4161 | 1.1065 |
| Pt                 | 1.7006 | 1.4203 |
| Sc                 | 1.7065 | 1.3168 |
| Ma                 | 1.5499 | 1.6129 |
| Si                 | 1.2883 | 1.6952 |

Table IX (p.47) gives the Standard Deviations on both testings.

Table X (p. 48) notes the Variance on both testings.

Table XI (p. 49) reports the Standard Error of the Mean on both testings.

In the discussion of the T scores, it was suggested that there would be significant differences, mostly elevations on the second testing, on at least the K, Hy, Pd, Mf and Ma scales. The statistical analysis shows that there are significant differences on not only these scales, but also on the following scales: L, Hs, Pa, Pt and Si. On scales K, Hy, Pd, Mf, Pa, Pt and Ma there are elevations on the second testing which are significant at the .01 level of confidence. On the L scale, there is an elevation on the second testing significant at the .02 level of confidence. On the Hs scale, there is an elevation on the second testing significant at the .05 level of confidence. The only scale which shows a significant decrease on the second testing is the Si scale. The decrease is significant at the .05 level of confidence.

Three scales showed no significant change. Scales F and D decreased slightly, but not significantly, on the second testing. Scale Sc increased slightly, but not significantly, on the second testing.

Examination of the T scores suggested that the group of seminarians would be found to be more homogeneous on the second testing. Tables IX, X and XI indicate this greater homogeneity. On all scales except Ma and Si, the Standard Error, Variance, and Standard Deviation are smaller, indicating a more homogeneous group on these scales at the time of the second testing, which testing is more reliable than the first.

On scales Ma and Si, the group is less homogeneous, though the Standard Error indicates that this second testing on these two scales is less reliable than the first.



## Chapter V

### Summary and Conclusions

This investigation proposed to study those changes, if any, which took place on the group profile of a group of diocesan seminarians tested in March of 1961 and retested in April of 1967 with the MMPI. The null hypothesis stated that there would be no changes on the group profile significant at the .05 level of confidence.

In view of the statistical analysis presented above, the null hypothesis is rejected on the following scales:

1. The L scale, where an elevation of score, significant at the .02 level of confidence was found.
2. The K scale, where an elevation of score, significant at the .01 level of confidence was found.
3. The Hs scale, where an elevation of score, significant at the .05 level of confidence was found.
4. The Hy scale, where an elevation of score, significant at the .01 level of confidence was found.
5. The Pd scale, where an elevation of score, significant at the .01 level of confidence was found.
6. The Mf scale, where an elevation of score, significant at the .01 level of confidence was found.
7. The Pa scale, where an elevation of score, significant at the .01 level of confidence was found.
8. The Pt scale, where an elevation of score, significant at the .01 level of confidence was found.

9. The Ma scale, where an elevation of score, significant at the .01 level of confidence was found.
10. The Si scale, where a decrease of score, significant at the .05 level of confidence was found.

The null hypothesis is accepted on only three scales; namely, F, D and Sc.

As a result of this investigation, it is found that this group differed greatly at the time of the second testing, with significant changes on all but three scales; all significant changes, with the exception of the change on the Si scale, were in one direction, i.e. increased scores on the second testing.

The rank order of clinical scales at the time of the first testing was Mf, Sc, Pt, Pa, Hy, Ma, Si, D, Pd and Hs. At the time of the second testing it was Mf, Ma, Pt, Hy, Sc, Pa, Pd, Hs, D and Si. The group was found to be generally more homogeneous at the time of the second testing except on scales Ma and Si.

It is hoped that these findings will serve some good purpose for those responsible for testing and screening procedures in seminaries and religious houses. Most especially, it is hoped that these findings will be of some positive help to Gorman, McDonagh and Healy who wish to set up some local norms for screening and formation purposes. The data for this investigation, as was mentioned above, was made available to this investigator through their courtesies.

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Approval Sheet

The thesis submitted by Richard J. Feller has been read and approved by the designated member of the Department of Psychology.

The final copies have been examined by this member, who is 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.

Jan. 23, 1969  
Date

Michael J. O'Brien, c.s.v.  
Signature of Adviser