An investigation of the correlations between years of service in pastoral work and the scores of the Minnesota Multiphasic personality inventory

C. L. Wessman
University of Nebraska at Omaha
AN INVESTIGATION OF THE CORRELATIONS BETWEEN YEARS OF SERVICE IN PASTORAL WORK AND THE SCORES OF THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY

by

C. L. Wessman

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Dedicated
to  my
Family
ACKNOWLEDGEMENT

While there is no possibility of acknowledging all who assisted me in this work, I would like to mention the help of Dr. William Hertzog Thompson for suggesting the study, of Dr. William E. Jaynes in evaluating the data, and of Dr. D. T. Pedrini in securing source material for the evaluating the various scales of the Minnesota Multiphasic Personality Inventory.
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CHAPTER I

THE PROBLEM AND ITS QUALIFICATIONS

In the August Twentieth issue of the Life Magazine an article appeared entitled, "Why Ministers Are Breaking Down." Three months later, the Christian Century answered this article in Life with "Are Ministers Cracking Up?" The conclusions of these two articles were in disagreement. However, they were alike in that they were based upon personal observations of a few cases and not upon careful study. Since then other periodicals have carried like articles written in like style. A casual examination of the books on a minister's personal problems in the library of any theological seminary will manifest the same general trend of enumerating and evaluating the problems upon the basis of personal experience and general observations with no attempt to test the material scientifically.

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2William H. Hudnit, Jr., "Are Ministers Cracking Up?" The Christian Century, 73 (November 7, 1956), 1288-9

I. THE PROBLEM

Statement of the Problem

The purpose of this study was to examine one phase of the effect of pastoral work upon the personality of the pastor. Specifically, the problem of the thesis was: Is there a correlation between the T-Scores of the various scales of the Minnesota Multiphasic Personality Inventory and the years that a pastor spends in the ministry of the Baptist General Conference?

Importance of the Study

Although many helpful and interesting books and articles have been written on the emotional problems of ministers, very little has been done to measure the extent of these problems, or to isolate them in the terminology of modern psychology. It was the purpose of this study to measure the extent of some of the psychological emotional problems as catalogued in the MMPI (Minnesota Multiphasic Personality Inventory) in order to relate these problems to the years spent in pastoral work. It was recognized that the results of this study by themselves would not have great significance, but combined with other studies this work might help to evaluate the extent and the causes of emotional problems of the clergy.

II. THE DELIMITATIONS

Due to a number of circumstances, mainly time and financial resources, this study was restricted to the traits of personality as
reflected in the scales of the MMPI, and to a sampling of clergymen of one denomination.

III. THE DEFINITION OF TERMS

Inasmuch as the MMPI claimed to be a "psychometric instrument designed ultimately to provide, in a single test, scores on all the more important phases of personality," a working description of personality had to be formulated. Further, because the MMPI used the trait concept of personality, this view was adopted. Within the trait concept of personality, Guilford defined one's personality as "his unique pattern of traits," and then described a trait as "any distinguishable, relatively enduring way in which an individual differs from others." The MMPI restricted the traits to nine conventional psychiatric classifications of emotional adjustment, one trait or scale of social withdrawal, and four scales which were intended primarily for validation purposes rather than personality trait measurement. In this study, personality was defined as the pattern of traits revealed by the scales of the MMPI.

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5 *Hathaway, op. cit.*, pp. 18-19.
The other terms used in this study were the conventional psychological terms which need no special defining.
CHAPTER II

RELATED RESEARCH

I. GENERAL CONSIDERATIONS

In 1957 Embree wrote, "The study of personality traits of religious workers in the church is a field which affords little opportunity for research that has set a precedent. A survey of abstracts published by the American Psychological Association under the headings of personality failed to render any fruitful sources of information." A further search in above mentioned abstracts from 1957 to 1961 did not produce any helpful material relating the MMPI to the clergy.

II. THE MMPI AS USED WITH THE CLERGYMEN AND SEMINARY STUDENTS OF THE EVANGELICAL UNITED BRETHREN CHURCH

Embree administered the MMPI to thirty clergymen of the Evangelical United Brethren Church of the Nebraska Conference and one hundred nineteen seminary students of the same church. Four groups of twenty-eight to thirty-one members of seminary students were included by testing two classes from each of two seminaries. The seminaries

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were the United Theological Seminary in Dayton, Ohio and the Evangelical Theological Seminary in Naperville, Illinois. The two classes in each seminary were the first year class which in seminary classification is called Juniors, and the third year class referred to as Seniors. In this work, he tested the significance of the difference between the means of the scores of the clergymen of the Nebraska Conference and the four classes of Seminary students in the various scales of the MMPI.

There were several results of Ebbree's study that were significant for this study. In comparing the Nebraska Conference Pastor's scores with that of the United Theological Seminary Seniors, he found:

The "t" test of the significant difference between the means showed a statistical difference between the Nebraska Conference and the United Seniors at the five per cent level of significance on the (?) Question Score, United Seniors higher mean; the L (Lie) Score, Nebraska Conference higher mean; and on the Ma (Hypomania) Scale, the United Seniors higher mean. At the one per cent level of significance, the United Seniors deviated very significantly from the clergy on the Pd (Psychopathic Deviate) Scale. Both United Juniors and the United Seniors showed this tendency to have higher means than the Nebraska Conference.\(^{10}\)

However, in comparing the Nebraska Conference Pastor's scores with that of the Evangelical Theological Seminary Seniors, he found "The test of significance failed to show any significant difference between the means"\(^{11}\) on any of the scales.

\(^{10}\) Ibid., p. 37
\(^{11}\) Ibid., p. 38
There were differences in the means of the scores between the Juniors of both seminaries and the Nebraska Clergymen, but this was not significant to this present study because of possible effects of different school training.\textsuperscript{12}

III. THE EFFECT OF AGE UPON THE SCORES OF THE MMPI

Although not directly related to the clergymen, there have been at least two studies made of the effect of a person's age upon his scores of the MMPI. J. Brozek tested a group of the ages seventeen to twenty-five, and another group of the ages between forty-five and fifty-five in which he found no significant difference in the means of their scores on the three validating scales.\textsuperscript{13} The other study by S. R. Hathaway and J. C. McKinley found that the scores on the Depression Scale became higher with increasing age.\textsuperscript{14}

\textsuperscript{12}Ibid., pp. 36-38.


\textsuperscript{14}S. R. Hathaway and J. C. McKinley, "A Multiphasic Personality Schedule (Minnesota), The Measurement of Symptomatic Depression", Journal of Psychology, 114 (July, 1942) p. 84.
CHAPTER III

THE METHOD OF THE STUDY

Four items in the method of this study are to be discussed: the sample of the population, the method of securing the data, the instrument of measurement, and the statistical method to evaluate the collected data.

I. THE SAMPLE OF THE POPULATION

The Population

Inasmuch as the basic purpose of this study was to determine the correlation between years spent in pastoral work and the scores in the various scales of the MMPI, an attempt was made to hold constant other factors that might effect the scores. Embree raised the question in his work whether or not the different denominational interests might effect the scores; hence the decision was made to restrict the population to one denomination.15 Because the writer had wider acquaintances in the Baptist General Conference than in any other group, he decided to restrict the population to the pastors of this group.

In several scales, the scores from the two seminaries of Embree's work showed considerable difference.16 In order to remove the possible

15 Embree, op. cit., p. 42.
16 Ibid., pp. 51, 52
influence of difference training, graduates of one theological seminary were chosen; Bethel Theological Seminary of St. Paul, Minnesota.

Bethel Theological Seminary is a Baptist school of Swedish origin. Historically, it has been conservative and evangelistic in theology and practice. The courses offered fall into four main categories: biblical studies, theology, church history, and practical methods. The scholastic requirements for entrance have increased during its history. Up to 1916, no scholastic requirements were stated. In 1917, high school graduation became required. In 1935, Junior College standing was asked, and in 1949 the Seminary became a graduate school requiring a bachelors degree for entrance.

Largely out of consideration for ease of contact, the population was restricted to pastors serving in the United States. The last restriction for the population was that it should consist only of male pastors who were active in pastoral work in the summer of 1958 or, in the case of a few of the older men, that only those who had been retired for three years or less would be included.

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17 Bethel Theological Seminary Catalog, 1961-1962, St. Paul, Minnesota, p.13
18 Ibid., pp.39-51.
19 Personal letter from the Dean of the Seminary, Dean Edwin Omark to the author dated February 8, 1962.
The Sample

A problem of securing men who would be willing to take the test was anticipated with the expectation that the hesitation would increase with the years of experience. In order to get a more even distribution between the younger men of the population and the older men, the decision was made to make the sampling by groups rather than by individuals throughout the population as a whole. That is, the plan was to secure 20 men who had not as yet graduated from the Seminary and hence had had no, or very little pastoral work, another group of 20 men who would have had the most years of experience in the population, and a third group of 20 whose years of experience would be nearer the median of the years of experience of the other two groups.

Because the number who were willing to cooperate in taking the test in anyone of the graduating classes in the two older groups was small, several classes had to be included in each group with the means of the years of experience of each group used.

The tentative size of 20 for each group was not attained.
II. THE METHOD OF SECURING THE DATA

Because there was no possibility to give the tests to the individuals in person, the necessity arose to do this by correspondence. A letter was first written to all of the prospective subjects within the groups asking for their cooperation. To those who agreed to take the test, a second letter was sent with a direction sheet, a questionnaire booklet, an answer sheet, and a self-addressed and stamped envelope.

At the beginning of the study, the decision was made to use the last graduating class of the seminary as the beginning of the comparison. This group was the class that graduated in 1959. Of the 27 graduating, 11 were willing to take the test.

The group at the other end of the series was to be a group of 20 pastors with the most years of experience. However, because many men of the earlier graduating classes were no longer serving as pastors, or refused to take the test, this group was limited to 13 out of 23 contacted. This group was made up of graduates from the classes from 1907 to 1928. Because the distribution of this group was strongly skewed toward the men of less years of experience, the mean was adjusted to the median—i.e. from 39 to 37 years of experience.

A group of 19 men out of 26 contacted from the graduating classes from 1935 to 1945 were found who would take the test. The mean of years of service of this group was 19.
The graduating class of 1955 was added later for two reasons: because they had taken the MMPI when entering the Seminary it was believed that comparing these scores with those of the 1958-59 tests might give information helpful to the interpreting the results of the entire study; and second, adding one more group would strengthen the validity of the study. 14 out of 17 who would qualify as testees agreed to take the test.

As the questionnaires were returned, they were scored and plotted on individual profile sheets.

III. THE INSTRUMENT OF MEASUREMENT

The Inventory

The Minnesota Multiphasic Personality Inventory is a psychometric instrument designed ultimately to provide, in a single test, scores on all the more important phases of personality. The point of view determining the importance of a trait in this case is that of the clinical or personnel worker who wishes to assay those traits that are commonly characteristic of disabling psychological abnormality. The instrument itself comprises 550 statements covering a wide range of subject matter—from the physical condition to the morale and the social attitudes of the individual being tested.17

The form of the Inventory used was the Group or Booklet Form. This consists of a booklet with the five hundred and fifty questions and a True-False Answer Sheet. The individual taking the test, marks the answer sheet either true or false as the question applies to him. If he cannot say, the answer space is left blank.

17 Hathaway and McKinley, Manual, p.5.
The Scales

There are three sets of scales of the MMPI that were used in this study: the Validity Scales that are mainly used to interpret the validity of the individual score or profile; the Clinical Scales that measure traits of personality; and the Social Scale. Each of these scales will be described in the following paragraphs.

The Validity Scales. These scales or scores are placed in the MMPI as a tool to evaluate the validity of the Clinical and Social Scale Scores.18

The Question Score (?)

The question score consists of the number of questions left unanswered. A high score here could indicate that the values in the other scales could be higher, or even invalid.19

The Lie Score (L)

The L score tends to indicate the degree to which the subject is attempting to choose the response that places him in the most acceptable light socially. A high score here might indicate that the values on the other scales should be higher than recorded.20 A word of caution should be added. Cottle and Schofield state that a high score in this scale might only indicate that the person is a member of a peculiar sub-culture with a rather strict moral code, and could in some questions be telling the truth in answering, false.21

18 Ibid., p. 18
19 Ibid., p. 18
20 Ibid., p. 18
The Validity Score (F)

The F score shows how well the subject understands the questions or the carefulness with which he answers. A high score would tend to invalidate the test.22

The K Score (K)

The K score is primary a correction factor in some of the clinical scales. It may indicate the subject's test-taking attitude.23

The Clinical Scales. The nine original clinical scales of the MMPI were used in this study, and are described in the following paragraphs.

The Hypochondriasis Scale (Hs)

The Hs scale is a measure of the amount of abnormal concern about bodily functions. ( . . . ) It is characteristic of the hypochondriac that he is immature in his approach to adult problems, tending to fail to respond with adequate insight.24

The Depression Scale (D)

The D scale measures the depressive tendencies of the subject. A high score indicates a lack of self-confidence and/or optimism.25

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22 Hathaway and McKinley, Manual, p. 18.
23 Ibid., p. 18.
24 Ibid., p. 19.
25 Ibid., p. 19.
The Hysteria Scale (Hy)

The Hy scale shows the degree that the testee may manifest hysteria symptoms under great stress. 26

The Psychopathic Deviate Scale (Pd)

The Pd scale measures the similarity of the subject to a group of persons whose main difficulty lies in their absence of deep emotional response, their inability to profit from experience, and their disregard of social mores. 27

The Interest Scale (Mf)

The scores on the Mf scale can indicate a number of personality characteristics. A high score among males could indicate a tendency of interest patterns of the opposite sex. 28 It could also indicate interests and abilities in logic, philosophy, and like branches of studies. Or, it could indicate a person who was sympathetic and responsive to the needs and feelings of others. 29 The scores on this scale seem to be higher among men of higher education. 30

The Paranoia Scale (Pa)

The scores on the Pa scale measures the subject's resemblance to clinical patients who have been diagnosed as having symptoms of paranoia, 26

26 Ibid., p. 19
27 Ibid., pp. 19-20
28 Ibid., p. 20.
30 Ibid., pp. 37, 269.
paranoid state, or paranoid schizophrenia.  

The Psychasthenia Scale (Pt)

The Pt scale measures the similarity of the subject to psychiatric patients who were troubled by phobias or compulsive behavior.  

The Schizophrenia Scale (Sc)

The Sc scale measures the similarity of the subject's responses to those patients who are characterized by bizarre and unusual thoughts or behavior.  

The Hypomania Scale (Ma)

The Ma scale measures the personality factor characteristic of persons with a marked overproductivity in thought and action.  

Non-Clinical Scales. Among several non-clinical scales that have been developed, only one was used.

The Social I. E. Scale (Si)

The Si scale aims to measure the tendency of individuals to withdraw from social contacts.

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31 Ibid., p. 20.
32 Ibid., pp. 20-21.
33 Ibid., pp. 20-21.
34 Ibid., p. 21.
Reliability and Validity

The MMPI Manual reported the test-retest reliability coefficients of separate studies made by Hathaway and McKinley, Holzberg and Alessi, and Cottle. These coefficients ranged from .46 to .93 in the various studies and the various MMPI Scales.36

Two factors in these studies should be pointed out. The test-retest reliability coefficients were computed on the scores of the scales and not upon individual questions. There could have been a very low test-retest reliability coefficient on the individual questions which the score as a whole would not have revealed. Second, there was no indication of the influence of remembering former answers upon the test-retest reliability.37

Since no evidence was found indicating these reliability coefficients were influenced by age or experience of the testees, the assumption was made that these coefficients were constant for all groups tested in this study.

Although the Manual claimed that the MMPI was able to differentiate in 60 per cent of the cases between various kinds of clinic classifications, and was even better in differentiating between normals

36 Ibid., p. 7.
and abnormals,\textsuperscript{38} it was not valid enough to be used alone in diagnoses.\textsuperscript{39} However the same assumption was made here as with reliability; that since there was no evidence found to indicate that the validity of the scores was influenced by age or experience, it was assumed that the degree of validity would remain constant for all groups tested.

\textsuperscript{38}Hathaway, \textit{op. cit.}, p. 6.

\textsuperscript{39}Anastasi, \textit{op. cit.}, pp. 553, 554.
IV. THE STATISTICAL PROCEDURE

The correlations between the years spent in pastoral work and the T-Scores on the various scales of the MMPI were computed according to the Pearson's Product Moment formula:

\[
\begin{align*}
r &= \frac{\sum{X}Y - \frac{1}{N}\sum{X}\sum{Y}}{\sqrt{\frac{1}{N}\sum{X^2} - \left(\frac{1}{N}\sum{X}\right)^2} \sqrt{\frac{1}{N}\sum{Y^2} - \left(\frac{1}{N}\sum{Y}\right)^2}}
\end{align*}
\]

In this formula, \( N \) represents the size of the group; \( X \) the years spent in pastoral work; and \( Y \) the scores in the MMPI.

Because the tests were taken anonymously, and identified only by groups, the mean or median of the years of service for the two older groups was used for all the individuals of that group. The median used for the oldest group was 37. The mean used for the next group was 19. The members in each of the two younger groups had had the same number of years of experience. The younger group had had 0 years of experience and the next group 4 years.

Scatterplots were examined to determine whether or not the relations between test scores and years in pastoral work were linear. Also the distribution of the scores of each group within each scale was checked graphically for possible skewness.
CHAPTER IV

RESULTS

The Pearson Product Moment correlations between the T-Scores for the various MMPI scales and the years spent in pastoral work will be found in Table I. When these coefficients were evaluated for their significance, none were found significant at the 1% level. Only the correlation for the Lie Score was found to be significant at the 5% level with a positive correlation. No other correlation became significant even at the 10% level.

For the sake of comparing these results with studies made by Embree, Brozek, and Hathaway and McKinley, the correlations were tested at the 16% and 30% levels. At the 16% level, the Question Scale became significant with a positive correlation, and the Schizophrenia Scale with a negative correlation. At the 30% level, the Depression and Interest Scales became significant with a positive correlation; the Psychopathic Deviate and the Hypomania Scales with a negative correlation. The results will be found tabulated in Table II.

In examining the means of the scores for the various scales of the groups in Table III, one will find that they are all above those accepted as normal by the Manual for the MMPI with five exceptions. Three of these exceptions will be found in the Hypomania Scale with all groups being below the accepted norm except the Graduating Class of 1959. The other two exceptions are in the 1955 Class where the means fell below the T-Score of 50 in the F and Social I.E. Scales.
### TABLE I

**THE PEARSON PRODUCT MOMENT CORRELATIONS BETWEEN THE T-SCORES FOR THE VARIOUS MMPI SCALES AND THE YEARS SPENT IN PASTORAL WORK.**

<table>
<thead>
<tr>
<th>The MMPI Scale</th>
<th>The Correlation Value</th>
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<tbody>
<tr>
<td>The Question Score (?)*</td>
<td>.205</td>
</tr>
<tr>
<td>The Lie Score (L)</td>
<td>.295</td>
</tr>
<tr>
<td>The Validity Score (F)</td>
<td>.016</td>
</tr>
<tr>
<td>The K Score (K)</td>
<td>-.030</td>
</tr>
<tr>
<td>The Hypochondriasis Scale (Hs)</td>
<td>.071</td>
</tr>
<tr>
<td>The Depression Scale (D)</td>
<td>.195</td>
</tr>
<tr>
<td>The Hysteria Scale (Hy)</td>
<td>.066</td>
</tr>
<tr>
<td>The Psychopathic Deviate Scale (Pd)</td>
<td>-.185</td>
</tr>
<tr>
<td>The Interest Scale (Mf)</td>
<td>.159</td>
</tr>
<tr>
<td>The Paranoia Scale (Pa)</td>
<td>.003</td>
</tr>
<tr>
<td>The Psychasthenia Scale (Pt)</td>
<td>-.105</td>
</tr>
<tr>
<td>The Schizophrenia Scale (Sc)</td>
<td>-.205</td>
</tr>
<tr>
<td>The Hypomania Scale (Ma)</td>
<td>.161</td>
</tr>
<tr>
<td>The Social I. E. Scale Scale (Si)</td>
<td>.055</td>
</tr>
</tbody>
</table>

*Raw scores were used as the Manual did not provide T-Scores for values as low as found here.*
## TABLE II

THE LEVELS OF SIGNIFICANCE OF THE CORRELATIONS BETWEEN THE SCORES FOR THE VARIOUS MMPI SCALES AND THE YEARS SPENT IN PASTORAL WORK.

<table>
<thead>
<tr>
<th>MMPI Scale</th>
<th>Kind of Correlation</th>
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<th>5</th>
<th>10</th>
<th>16*</th>
<th>30*</th>
<th>Beyond 30</th>
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<tr>
<td>P</td>
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<td>L</td>
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<td></td>
<td></td>
<td>x</td>
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<tr>
<td>F</td>
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<tr>
<td>K</td>
<td>negative</td>
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<tr>
<td>Hs</td>
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<td>Hy</td>
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<td>Si</td>
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</table>

*The values for a 50 bivariate comparison had to be used as no values for a 57 bivariate could be found for these low levels of significance. (See F. N. David, Tables of the Correlation Coefficient (Cambridge, University Press, 1954), pp. 188, 189.*
## TABLE III

THE MEANS AND THE RANGE OF THE SCORES ON THE MMPI SCALES FOR ALL GROUPS T-SCORES

<table>
<thead>
<tr>
<th></th>
<th>T#</th>
<th>L</th>
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<th>K</th>
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<td>46-64</td>
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<td>19-67</td>
<td>31-75</td>
<td>35-76</td>
<td>16-67</td>
<td>17-67</td>
<td>11-65</td>
<td>50-73</td>
<td>50-71</td>
<td>38-72</td>
<td>10-71</td>
</tr>
</tbody>
</table>

Composite of all groups (N57)

| Mean   | 1.58 | 51.9 | 50.2 | 61.7 | 55.5 | 51.8 | 58.2 | 55.9 | 60.2 | 53.4 | 56.4 | 55.3 | 19.2 | 52.2 |
| Range  | 0-12 | 36-80 | 46-75 | 39-82 | 31-96 | 35-76 | 31-74 | 11-84 | 38-67 | 31-79 | 42-71 | 33-72 | 10-71 |     |

*These are raw scores as the Manual did not provide T-Scores for scores this low.
The means and the ranges of the lie scores for the four groups tested.
## TABLE IV
RESPONSE TO INDIVIDUAL QUESTIONS OF THE LIE SCORE

<table>
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<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><em>(15)</em> Once in awhile I think of things too bad to talk about.</td>
<td>7</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>17</td>
<td>29.8</td>
</tr>
<tr>
<td><em>(30)</em> At times I feel like swearing.</td>
<td>11</td>
<td>11</td>
<td>8</td>
<td>6</td>
<td>36</td>
<td>63.2</td>
</tr>
<tr>
<td><em>(45)</em> I do not always tell the truth.</td>
<td>12</td>
<td>15</td>
<td>13</td>
<td>6</td>
<td>46</td>
<td>80.7</td>
</tr>
<tr>
<td><em>(60)</em> I do not read every editorial in the newspaper every day.</td>
<td>1</td>
<td>7.6</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>5.3</td>
</tr>
<tr>
<td><em>(75)</em> I get angry sometimes.</td>
<td>1</td>
<td>7.6</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>8.8</td>
</tr>
<tr>
<td><em>(90)</em> Once in awhile I put off until tomorrow what I ought to do today.</td>
<td>1</td>
<td>7.6</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>3.5</td>
</tr>
<tr>
<td><em>(105)</em> Sometimes when I am not feeling well I am cross.</td>
<td>5</td>
<td>38.4</td>
<td>4</td>
<td>28.6</td>
<td>17</td>
<td>29.8</td>
</tr>
<tr>
<td><em>(120)</em> My table manners are not quite as good at home as when I am out in company.</td>
<td>6</td>
<td>16.1</td>
<td>7</td>
<td>36.8</td>
<td>1</td>
<td>7.1</td>
</tr>
<tr>
<td><em>(135)</em> If I could get into a movie without paying and be sure I was not seen, I would probably do it.</td>
<td>13</td>
<td>100</td>
<td>18</td>
<td>24.7</td>
<td>14</td>
<td>100</td>
</tr>
<tr>
<td><em>(150)</em> I would rather win than lose in a game.</td>
<td>0</td>
<td>0.0</td>
<td>0.2</td>
<td>10.5</td>
<td>1</td>
<td>7.1</td>
</tr>
<tr>
<td><em>(165)</em> I like to know some important people because it makes me feel important.</td>
<td>11</td>
<td>84.6</td>
<td>14</td>
<td>73.7</td>
<td>2</td>
<td>14.3</td>
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<tr>
<td><em>(195)</em> I do not like everyone I know</td>
<td>4</td>
<td>80.7</td>
<td>1</td>
<td>62.1</td>
<td>7</td>
<td>50.0</td>
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</table>

(continued on next page)
### TABLE IV (cont.)

RESPONSE TO INDIVIDUAL QUESTIONS OF THE LIE SCORE

<table>
<thead>
<tr>
<th>Question</th>
<th>Number and percentage responding, False</th>
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<tr>
<td></td>
<td>N 13</td>
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<tr>
<td>(225)*I gossip a little at times.</td>
<td>5 / 38.4 %</td>
</tr>
<tr>
<td>(255)*Sometimes at elections I vote for men about whom I know very little.</td>
<td>5 / 38.4 %</td>
</tr>
<tr>
<td>(285)*Once in awhile I laugh at a dirty joke.</td>
<td>10 / 76.9 %</td>
</tr>
</tbody>
</table>

* Number of the question in the Booklet for the Minnesota Multiphasic Personality Inventory.

# Number not given.

As shown in Figure I, the T-Scores of the Lie Scale were all the way from the lowest possible score of 36 to the score of 80. The range of the distributions of the scores in each group was rather uniform being 27, 30, 27, 34.

In examining the Scatter Plots for each of the scales that were found to be significant, all of the correlations appeared to be linear.

Due to the few testees in each group, there was difficulty in determining definitely the character of the distribution of the scores within each scale. In the Lie, Schizophrenia, Interest, and Hypomania scales the distribution appeared normal within each group. In two groups of the Depression and Psychopathic Deviate scales the distribution was so scattered that no conclusion could be drawn as to whether they were normal or not. The distribution in the Question Score (using raw scores) was decidedly skewed in all groups with the most scores being in the 0 column.

Table III indicates that the means of the Lie Scores of all four groups were within the range of normality of 40-60, and that the mean of the group as a whole was well within the range being 54.9.

In examining the response to individual questions of the Lie Scale as shown in Table IV, one thing is apparent: the scores on questions dealing with moral issues as swearing (question no. 30), lying (no. 45), cheating (no. 135), not liking others (no. 195), and the response to dirty jokes (no. 285) tend to be higher in the group studied than in the group the MMPI used as the norm. The only exception
in matters of morals was that dealing with thought content (no. 15) where no standard for "bad" is indicated.

In the other questions, the response was close to the norm except in question number 255 dealing with voting where the score was decidedly below the norm.
CHAPTER V

SUMMARY

The purpose of this study was to determine whether there was a correlation between the T-Scores of the various scales of the MMPI and the years that a graduate of the Bethel Theological Seminary spent in pastoral work of the Baptist General Conference.

In 1958-1959, test booklets and answer sheets of the MMPI were mailed to all members of the graduating classes of Bethel Seminary for the years 1907 through 1928, 1935 through 1945, 1955, and 1959 who had agreed to take the test.

The reported scores of each scale of the MMPI were examined first to see if the distribution was normal within each age group; and second to find any possible correlation between the scores and years spent in pastoral work. The correlations were measured by Pearson's Product Moment formula.

The Lie Score correlation was found to be significant at the 5% level; the Question Score correlation and Sc Score correlation at the 16% level; the D, Mf, Pa, and Ma correlations at the 30% level. The indicated level of significance of the D and Pa scales may not be reliable because the distributions within the two groups were so scattered that nothing was indicated as to whether they were normal or skewed.
CONCLUSIONS

1. Nothing could be said pertaining to the general characteristics of the population under study except that there was no indication in the sample of a correlation between the scores of the personality-clinical scales of the MMPI and the years spent in pastoral work. While the correlations of two of the scales became significant at the 16% level and four more at the 30% level, these levels are so low that they have no significance except as they might tend to be substantiated by other studies.

2. Because the Lie Score is a validating score for the MMPI as a whole and not a personality scale nothing conclusive as to the personality of the groups could be said on the basis of the correlation which was significant at the 5% level. It might indicate one of two things or a combination of them: for some unknown reason the more experienced a pastor became the more anxious he became to appear in a good social light in this test, or that a social change of mores in the group had taken place from one of more strict social code in the older men to one of more like society as a whole in the younger men.

3. The findings of this study should not be interpreted as having any significance for clergymen as a whole because:
   a). The samplings were taken from a population that was a small, closely related religious group where the intra-group influences were strong;
b). The samplings were cross sectional rather than longitudinal and would not indicate changes that might take place in specific individuals;

c). The samplings were not truly random, but consisted of all who would take the test within the group chosen. There were many who refused to take the test. Only 57 out of 94 contacted agreed to take the test.

4. Some of the results of this study might tend to substantiate the findings of the following studies:

a). In Embree's study, he found a statistical difference at the 5% level between the means of the Nebraska Conference Pastors and that of the United Theological Seminary Seniors in the Lie Score. The pastors had the higher means. In the present study, testing the means of the Lie Score of four groups with the Pearson's Product Moment formula, the correlation was found to be significant at the 5% level with the means increasing with years of experience.

In the Hypomania Scale, Embree found a difference in the means of the United Seminary Seniors and the Pastors which was significant at the 5% level with the Seniors having the higher means. The negative correlation found in this study indicated the same sort of a trend, but it was significant only at the 30% level.

40 See page 6.
The United Seniors also differed from the Pastors at the 1% level of significance in the Psychopathic Deviate scale with the Seniors having the higher means. There was a slight indication of the same trend in this study, but again the correlation was significant only at the 30% level.

There was one statistical difference: Embree found a significant difference of the means at the 5% level in the Question Score with the Seniors of the United Seminary having the higher means. There was a slight trend in the opposite direction which was significant at the 16% level in the study.

These similarities and differences should be evaluated carefully inasmuch as Embree found none of these trends when he compared the means of the Evangelical Theological Seniors and those of the Nebraska Conference Pastors.

b). In contrast to the findings of this study, Brozek found no correlation between the Lie Score and age in the sampling of a heterogeneous public.

c). There was an indication at the 30% level of significance of a likeness to the results of a study by Hathaway and McKinley that there was a positive correlation between the scores of the Depression Scale and the increase of age.

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41 See page 7.
CHAPTER VI

SUGGESTIONS FOR FURTHER RESEARCH

Due to the restrictions of this study, the author would like to suggest the following areas for further research:

1. After several years, the members of the graduating classes of 1955 and 1959 of the Bethel Theological Seminary should be asked to take the MMPI again in order to make a longitudinal study for the effects of experience upon the scores of the various scales. This undoubtedly would have to be done by mail in somewhat the same manner as in this study.

2. A like study should be made of clergymen of a more liturgical denomination than the one used in this study or in Embree's, and the results compared.

3. Other scales of the MMPI not used in this study should be applied to the answers for possible significant correlations.

4. Other personality or temperament tests should be used as the MMPI was used in this study in order to see if they might uncover significant trends in personality or temperament changes.
BIBLIOGRAPHY

A. BOOKS


B. PUBLICATIONS OF SOCIETIES


C. PERIODICALS


Dodds, Elizabeth. "What Are You Doing To Your Minister's Wife?" Good Housekeeping, June 1959, pp. 88 ff.


C. UNPUBLISHED MATERIALS


Schofield, William S. "The Minnesota Multiphasic Personality Inventory." Mimeographed class notes, no date given.

APPENDIX A

THE MEANS AND THE RANGE OF THE SCORES ON THE MMPI SCALES OF ENTRANCE TESTS AT THE SEMINARY (T-SCORES)

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<th>K</th>
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<td>53.6</td>
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*These are raw scores as the Manual did not provide T-Scores for the raw scores this low.

#The Entrance Scores for one of the individuals who took the test for this study had been lost at the Seminary.