Personality differences between students majoring in the natural sciences and social sciences

Curtis Ash
Atlanta University

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PERSONALITY DIFFERENCES BETWEEN STUDENTS
MAJORING IN THE NATURAL SCIENCES
AND SOCIAL SCIENCES

A THESIS
SUBMITTED TO THE FACULTY OF THE SCHOOL OF EDUCATION
ATLANTA UNIVERSITY IN PARTIAL FULFILLMENT
OF THE REQUIREMENT FOR THE DEGREE
OF MASTERS OF ARTS

BY
CURTIS ASH

SCHOOL OF EDUCATION

ATLANTA, GEORGIA
AUGUST, 1956
ACKNOWLEDGMENTS

The writer is greatly indebted to Dr. Edward Weaver who served as major Advisor and Dr. Laynette Bickers who served as Co-Adviser for this study.

Sincere gratitude is expressed to Mr. Charles Hicks for many suggestions he made to help make this study possible.

Indebtedness is expressed to the one-hundred students who served as subjects for this study.

An expression of thanks is due to Mrs. Pearlyne Irving for her service in the final preparation of this thesis.

C. A.
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</tr>
<tr>
<td>10.</td>
<td>Comparative Data Based on Performances of Natural Science and Social Science Groups on the Economic Conservatism Section of the Minnesota Personality Scale</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

Rationale.—For a long period of time educators have been pointing out differences between the fields of natural science and social science. The chief reliance for this point of view must be placed upon the testimony of outstanding scientists and social scientists. The social sciences are not only newer than the natural sciences but their data are more complex.\(^1\) The social scientists study human beings and their relationships and at the present time, these are more complex than the more purely natural phenomena. There are some who maintain that the alleged differences in the disciplines of the natural sciences and social sciences are reflected in differences in the personality structure of individuals who have especial competence in one or another of these disciplines.

To be absolutely sure that these differences do exist, one must gather data and correctly evaluate it with respect to this problem. One must also take into consideration individual differences of those operating in these disciplines. Students of the same field often possess differences with respect to personality due to "individual differences" and past experiences. Some educators seem to have the opinion that there are significant differences in personality between individuals with competence in the two fields. In this study, students with competence from each group will be used to

determine if there are any significant differences in personality structure.

Statement of Problem.---The problem involved in this study was to
determine the differences, if any, that exist between students majoring in
the natural sciences and those majoring in the social sciences with respect
to personality structure.

Scope and Limitation of Study.---This study concerned itself with the
undergraduate majors in social science and the natural sciences, registered
in the Atlanta University Summer School, 1956, Atlanta, Georgia.

Purpose of the Study.---The purpose of this study was to determine,
significant differences, if any, in personality organization and structure
existing between those undergraduate students who major in the natural
sciences and those who major in the social sciences.

Method of Research.---The Descriptive-Survey method of research em-
ploying the technique of testing and general analysis was utilized.

Procedure.---The data necessary to develop this study were gathered,
organized, analyzed, interpreted, and presented through the following pro-
cedural steps:

1. The literature pertinent to this research was reviewed, summarized,
   and presented in the thesis.

2. The subjects were orientated to the purpose of the proposed study.

3. An appropriate personality scale was administered to the subjects.

4. The data from the personality scale were assembled in appropriate
tables and figures which, in turn, were statistically treated in
   accordance with the demands of the research.

5. Findings from this study were summarized; conclusions were drawn.

6. Implications and recommendations were formulated.

Value of the Study.---The probable values of this study may be
characterized as follows:
1. This study may reveal problems which the two groups in question are not aware of.

2. The findings may be helpful to the individual teacher in planning for class instruction.

3. Each group may gain a knowledge of expectancy of the two groups with respect to personality.

Definition of Terms.— Significant terms used in this study are defined below:

1. The term, "Personality," refers to the most characteristic integration of an individual's structures, modes of behavior, interests, attitudes, capacities, abilities and aptitudes.

2. The term, "Adjustment," refers to the dynamic equilibrium of the total organism or personality.

3. The term, "Natural Sciences", refers to Biology, Chemistry, Mathematics and Physics.

4. The term, "Social Science," refers to those subjects which deal with the relationships of human beings. These subjects may include Economics, Geography, History, Political Science, Sociology, and Education.

Related Literature.— Several of the important phrases of literature pertinent to this study are summarized in the following review:

1. Dimensions of personality

2. Nature of biological content

3. Related studies.

---

Munn\(^1\) makes pertinent points concerning personality traits. He states, we look at the individual in different ways, from different angles, or in different lights, and we need terms to represent these different dimensions of personality. We speak of these dimensions as traits. Some sample personality traits are intelligence, aptitude, emotionality, introversion, dominance, pugnacity, vivacity, and sociability.

Cruze\(^2\) states, it should be recognized that the development of personality is an extremely complex process, much more complicated than the development of specific skills and habits. It is a process which lasts for months and years, usually without any conscious or deliberate effort on the part of the individual. Some traits are the result of deliberate training provided by parents and teachers, but most of our personality characteristics are undoubtedly the result of nondeliberate trial-and-error learning.

Williams and Snyder\(^3\) state that in biological sciences the basic concept is growth. Throughout the life cycle continuous changes within the organism constitute this growth process. So long as there is a growth, there is hope for a brighter future.

With regard to personality characteristics, Carmichael\(^4\) states that the personality characteristics of adults have a relatively high degree of consistency. They tend to remain through out life.

\(^1\) Norman L. Munn, *Psychology*, p. 571.
Young\textsuperscript{1} states that one measure of the maturity of the individual is the degree to which his traits, attitudes, sentiments, values and ideals become integrated into a larger philosophy of life, a general frame of reference by which he judges his own acts, words, and thoughts and the acts and words of others.

Thorndike\textsuperscript{2} states that among the personality tests used up until now the great majority are autobiographical or questionnaires. The questions may consist of, or include, directly relevant ones, such as a psychiatrist might ask a patient, or an employer a candidate for employment; and the answers, if true, may be imported as a condensation of parts of a life history.

Young\textsuperscript{3} states that personality may be defined as the more or less organized body of ideas, attitudes, traits, values, and responses which an individual has built into roles and statuses for dealing with others and with himself. The source of these roles and statuses, with their supporting ideals, attitudes, traits and habits, is his differential participation in various groups and their culture patterns. Some of his characteristics as a personality will have much in common with those of his fellows.

Any sound and full consideration of personality must take into account both external or stimulus-response aspects of personality and the internal or motivational and valuational features. It is true that the internal factors can only be studied by observing gross bodily reactions or by studying gestures and language. But from such external expressions we draw

---

certain inferences about the internal elements and these inferences aid us in understanding what impels people to action and what meaning they give their experiences.

Personality development and function within the social-cultural matrix rest upon the biological foundation of the individual. This means that one's potentialities for development and function have their first roots in components which depend on heredity.

The societal impress upon personality is first of all evident in the different membership roles and statues which the individual has or acquires.

We must examine more seriously the place of constitutional elements in the development and functioning of personality. No matter how much importance we attach to the social-cultural environment in governing behavior, we must never forget the individual is first of all an organic system, a member of an animal species. The biological factors are important for at least two reasons: (1) only through organic structures does behavior take place; and (2) while the individual always expresses himself largely through personal social and cultural learning, the constitution set certain significant limitations to such learning.

Allport\(^1\) states:

The newborn infant lacks personality, for he has not yet encountered the world in which he must live, and has not developed the distinctive modes of adjustment and mastery that will later comprise his personality. He is almost altogether a creature of heredity. The complication considerations are, first, the probable existence of pre-natal learning, and secondary, the fact that some aspects of inheritance are latent and require time for their maturation.

\(^1\) Gordon W. Allport, Personality A Psychological Interpretation (New York, 1937), p. 107.
Byrd\(^1\) states that, there appears to be a statistically reliable positive relationship between proficiency in the field of natural science and the ability to interpret reading materials in the fields of social studies, also, there appears to be a statistically reliable positive relationship between proficiency in the field of social studies and the ability to interpret reading materials in the field of natural science.

Chapter II will present an analysis and interpretation of the data and Chapter III will present the findings, conclusions, implications and recommendations.

CHAPTER II

ANALYSIS AND INTERPRETATION OF DATA

Purpose of This Study.—The purpose of this study was to determine, if any significant differences in personality organization and structure existed between those undergraduate students who majored in the natural sciences and those who majored in the social sciences.

This data were gathered by the use of the Minnesota Personality Inventory Scale. This scale is part of the Minnesota Multiphasic Personality Inventory Scale. The Minnesota Personality Scale provides five separate measures of individual adjustment, morale, social adjustment, family relations, emotionality, and economic conservatism.

The scale was presented to the subjects during a regular classroom meeting, and was administered according to the manual of direction.

The subjects used in this study were undergraduate juniors and seniors majoring in the Natural Sciences and Social Studies and attending the Atlanta University during the summer school session, 1956. There were one-hundred cases used. Fifty of the cases were majors in the social studies, and the others were majoring in the natural sciences. Each group was composed of forty-one male and nine female students.

The subsequent portions of this Chapter analyze and interpret these data.

Results of Group Performances on the Morale Aspect of the Inventory.—Morale was the first aspect of personality measured by the Minnesota
TABLE 1

FREQUENCY DISTRIBUTION OF RAW NATURAL SCIENCE SCORES AND RAW SOCIAL SCIENCE SCORES WITH RESPECT TO MORALE

<table>
<thead>
<tr>
<th>Natural Science</th>
<th>Social Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Scores</td>
</tr>
<tr>
<td>-</td>
<td>180-189</td>
</tr>
<tr>
<td>4</td>
<td>170-179</td>
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<tr>
<td>6</td>
<td>160-169</td>
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<tr>
<td>18</td>
<td>150-159</td>
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<tr>
<td>9</td>
<td>140-149</td>
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<td>8</td>
<td>130-139</td>
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<td>2</td>
<td>120-129</td>
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<td>90-99</td>
</tr>
<tr>
<td>-</td>
<td>80-89</td>
</tr>
<tr>
<td>1</td>
<td>70-79</td>
</tr>
<tr>
<td>1</td>
<td>60-69</td>
</tr>
</tbody>
</table>

Personality Scale. Table 1 presents separate data concerning the two groups. In general the natural science and social science groups were low in morale with respect to the norms of the scale used. Their mean scores were 147.4 and 156, respectively. The standard deviation for the natural science group was 20.6, while the standard deviation for the social studies group was 15. When these measures of dispersion were compared with standardization data carried in the test manual, it was concluded that both groups were wide in distribution of morale.

The fundamental data formed the basis for the comparative results in Table 2. The standard error of the mean for the natural science group and
TABLE 2
COMPARATIVE DATA BASED ON PERFORMANCES OF NATURAL SCIENCE AND SOCIAL SCIENCE GROUPS ON THE MORALE SECTION OF THE MINNESOTA PERSONALITY SCALE

<table>
<thead>
<tr>
<th>Measures</th>
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<th>Social Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Mean</td>
<td>147.4</td>
<td>156</td>
</tr>
<tr>
<td>S. D.</td>
<td>20.6</td>
<td>15</td>
</tr>
<tr>
<td>S Em</td>
<td>2.9</td>
<td>2.1</td>
</tr>
<tr>
<td>Difference Between Means</td>
<td>8.6</td>
<td></td>
</tr>
<tr>
<td>S E Between Means</td>
<td></td>
<td>3.57</td>
</tr>
<tr>
<td>Critical Ratio</td>
<td></td>
<td>2.4</td>
</tr>
</tbody>
</table>

The social science group were 2.9 and 2.1, respectively. The difference between the means was 8.6 and the standard error of the difference was 3.57. The resulting critical ratio for the two groups was 2.4. Operation at the one per cent level of confidence indicated that there was no significant difference between the two groups with respect to morale.

Results of Group Performances on the Social Adjustment Aspect of the Inventory.—Social adjustment was the second aspect of personality measured by the Minnesota Personality Scale. Table 3 presents separate data concerning the two groups. In general, the Natural Science and Social Science groups were average in social adjustment with respect to the norms of the scale used. Their mean scores were 221.4 and 222.4, respectively. The standard deviation for the Natural Science group was 23.1 while the standard deviation for the Social Science group was 28.2. When these measures of dispersion were compared with standardization data carried in the test manual, it was
TABLE 3
FREQUENCY DISTRIBUTION OF RAW NATURAL SCIENCE
SCORES AND RAW SOCIAL SCIENCE SCORES WITH
RESPECT TO SOCIAL ADJUSTMENT

<table>
<thead>
<tr>
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<td></td>
<td>260-269</td>
</tr>
<tr>
<td>6</td>
<td>250-259</td>
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<td>11</td>
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<td>170-179</td>
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<td>150-159</td>
</tr>
<tr>
<td>1</td>
<td>140-149</td>
</tr>
</tbody>
</table>

concluded that both groups were wide in distribution of morale.

The fundamental data formed the basis for the comparative results in Table 4. The standard error of the mean for the Natural Science group and Social Science group were 3.3 and 4.02, respectively. The difference between the means was 2.0 and the standard error of the difference, 4.02. The resulting critical ratio for the two groups was .49. Operation at the one per cent level of confidence indicated that there was no signifi-
### TABLE 4

**COMPARATIVE DATA BASED ON PERFORMANCES OF NATURAL SCIENCE AND SOCIAL SCIENCE GROUPS ON THE SOCIAL ADJUSTMENT SECTION OF THE MINNESOTA PERSONALITY SCALE**

<table>
<thead>
<tr>
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<tr>
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<td>50</td>
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<tr>
<td>Mean</td>
<td>224.4</td>
<td>222.4</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>23.1</td>
<td>28.2</td>
</tr>
<tr>
<td>S Em</td>
<td>3.3</td>
<td>4.02</td>
</tr>
<tr>
<td>Difference Between Means</td>
<td>2.0</td>
<td>4.02</td>
</tr>
<tr>
<td>S E Between Means</td>
<td>1.49</td>
<td></td>
</tr>
<tr>
<td>Critical Ratio</td>
<td></td>
<td>1.86</td>
</tr>
</tbody>
</table>

significant difference between the two groups with respect to social adjustment.

**Results of Group Performances on the Family Relations Aspect of the Inventory.**—Family Relations was the third aspect of personality measured by the Minnesota Personality Scale. Table 5 presents separate data concerning the two groups. In general, the Natural Science and Social Science groups were high in family relations with respect to the norms of the scale used. Their mean scores were 128.8 and 125.2, respectively. The standard deviation for the Natural Science group was 21.3, while the standard deviation for the Social Science group was 20.1.

The fundamental data formed the basis for the comparative results in Table 6. The standard error of the mean for the Natural Science group and Social Science group were 3.04 and 2.87, respectively. The difference between the means was 3.6 and the standard error of the difference, 1.7.

The resulting critical ratio for the two groups was .86. Operating at the
one per cent level of confidence indicated that there was no significant difference between the two groups with respect to family relations.

Results of Group Performances on the Emotionality Aspect of the Inventory.— Emotionality was the fourth aspect measured by the Minnesota Personality Scale. Table 7 presents separate data concerning the two groups. In general, the Natural Science and Social Science groups were
TABLE 6
COMPARATIVE DATA BASED ON PERFORMANCES OF NATURAL SCIENCE AND SOCIAL SCIENCE GROUPS ON THE FAMILY RELATIONS SECTION OF THE MINNESOTA PERSONALITY SCALE

<table>
<thead>
<tr>
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<tr>
<td>Mean</td>
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<td>125.2</td>
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<tr>
<td>Standard Deviation</td>
<td>21.3</td>
<td>20.1</td>
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<tr>
<td>$S\text{Em}$</td>
<td>3.04</td>
<td>2.87</td>
</tr>
<tr>
<td>Difference Between Means</td>
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<tr>
<td>$S\text{Ee}$ Between Means</td>
<td>4.17</td>
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<td>Critical Ratio</td>
<td>0.86</td>
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Results of Group Performances on the Economic Conservatism Aspect of the Inventory.— Economic Conservatism was the last aspect of personality
<table>
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<td>Frequency</td>
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<td>50–59</td>
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TABLE 8

COMPARATIVE DATA BASED ON PERFORMANCES OF NATURAL SCIENCE AND SOCIAL SCIENCE GROUPS ON THE EMOTIONALITY SECTION OF THE MINNESOTA PERSONALITY SCALE

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<tr>
<td>Mean</td>
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<td>138.4</td>
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<tr>
<td>S Em</td>
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<tr>
<td>Difference Between Means</td>
<td></td>
<td>9.8</td>
</tr>
<tr>
<td>S E Between Means</td>
<td></td>
<td>4.46</td>
</tr>
<tr>
<td>Critical Ratio</td>
<td></td>
<td>2.19</td>
</tr>
</tbody>
</table>

measured by the Minnesota Personality Scale. Table 9 presents separate data concerning the two groups. In general, the Natural Science and Social Science groups were low in economic conservatism with respect to the norms of the scale used. Their mean scores were 96.4 and 96.6, respectively. The standard deviation for the Natural Science group was 7.2, while the standard deviation for the Social Science group was 12.3. When these measures of dispersion were compared with standardization data carried in the test manual, it was concluded that both groups were wide in distribution of economic conservatism.

The fundamental data formed the basis for the comparative results in Table 10. The standard error of the mean for the Natural Science group
TABLE 9

FREQUENCY DISTRIBUTION OF RAW NATURAL SCIENCE SCORES AND RAW SOCIAL SCIENCE SCORES WITH RESPECT TO ECONOMIC CONSERVATISM

<table>
<thead>
<tr>
<th>Natural Science Scores</th>
<th>Frequency</th>
<th>Social Science Scores</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>120-129</td>
<td>1</td>
<td>100-109</td>
<td>17</td>
</tr>
<tr>
<td>110-119</td>
<td>5</td>
<td>90-99</td>
<td>16</td>
</tr>
<tr>
<td>100-109</td>
<td>17</td>
<td>80-89</td>
<td>8</td>
</tr>
<tr>
<td>90-99</td>
<td>16</td>
<td>70-79</td>
<td>-</td>
</tr>
<tr>
<td>80-89</td>
<td>8</td>
<td>60-69</td>
<td>1</td>
</tr>
<tr>
<td>70-79</td>
<td>-</td>
<td>50-59</td>
<td>1</td>
</tr>
<tr>
<td>60-69</td>
<td>1</td>
<td>40-49</td>
<td>-</td>
</tr>
<tr>
<td>50-59</td>
<td>1</td>
<td>30-39</td>
<td>-</td>
</tr>
<tr>
<td>40-49</td>
<td>-</td>
<td>20-29</td>
<td>1</td>
</tr>
</tbody>
</table>

and Social Science group were 1.03 and 1.76, respectively. The difference between the means was .2 and the standard error of the difference was 2.03. The resulting critical ratio for the two groups was .09. Operation at the one per cent level of confidence indicated that there was no significant difference between the two groups with respect to economic conservatism.
### TABLE 10

**Comparative Data Based On Performances of Natural Science and Social Science Groups on the Economic Conservatism Section of the Minnesota Personality Scale**

<table>
<thead>
<tr>
<th>Measures</th>
<th>Natural Science</th>
<th>Social Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Mean</td>
<td>96.4</td>
<td>96.6</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>7.2</td>
<td>12.3</td>
</tr>
<tr>
<td>S E</td>
<td>1.03</td>
<td>1.75</td>
</tr>
<tr>
<td>Difference Between Means</td>
<td>.2</td>
<td></td>
</tr>
<tr>
<td>S E Between Means</td>
<td>2.03</td>
<td></td>
</tr>
<tr>
<td>Critical Ratio</td>
<td>.09</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER III

FINDINGS, CONCLUSIONS, RECOMMENDATIONS

Rationale.—For a long period of time educators have been pointing out differences between the fields of natural science and social science. The chief reliance for this point of view must be placed upon the testimony of outstanding scientists and social scientists. The social sciences are not only newer than the natural sciences but their data are more complex. The social scientists study human beings and their relationships, and at the present time these are more complex than the more purely natural phenomena. There are some who maintain that the alleged differences in the disciplines of the natural sciences and social sciences are reflected in differences in the personality structure of individuals who have especial competence in one or another of these disciplines.

To be absolutely sure that these differences do exist, one must gather data and correctly evaluate it with respect to this problem. One must also take into consideration individual differences of those operating in these disciplines. Students of the same field often possess differences with respect to personality due to "individual differences" and past experiences. Some educators seem to have the opinion that there are significant differences in personality between individuals with competence in the two fields. In this study, students with competence from each group will be used to determine if there are any significant differences in personality structure.

Statement of Problem.—The problem involved in this study was to determine the differences, if any, that exist between students majoring in
the natural sciences and those majoring in the social sciences with respect
to personality structure.

Scope and Limitation of Study.--- This study concerned itself with the
undergraduate majors in social science and the natural sciences, registered
in the Atlanta University Summer School, 1956, Atlanta, Georgia.

Purpose of the Study.--- The purpose of this study was to determine
significant differences, if any, in personality organization and structure
existing between those undergraduate students who major in the natural sciences
and those who major in the social sciences.

Method of Research.--- The Descriptive-Survey method of research employ-
ing the technique of testing and general analysis was utilized.

Procedure.--- The data necessary to develop this study were gathered,
organized, analyzed, interpreted, and presented through the following pro-
edural steps:

1. The literature pertinent to this research was reviewed, summarized,
   and presented in the thesis.
2. The subjects were orientated to the purpose of the proposed study.
3. An appropriate personality scale was administered to the subjects.
4. The data from the personality scale were assembled in appropriate
tables and figures which, in turn, were statistically treated in
   accordance with the demands of the research.
5. Findings from this study were summarized; conclusions were drawn.
6. Implications and recommendations were formulated.

Value of the Study.--- The probable values of this study may be
characterized as follows:

1. This study may reveal problems which the two groups in question
   are not aware of.
2. The findings may be helpful to the individual teacher in planning for class instruction.

3. Each group may gain a knowledge of expectancy of the two groups with respect to personality.

Definition of Terms.— Significant terms used in this study are defined below:

1. The term, "Personality," refers to the most characteristic integration of an individual's structures, modes of behavior, interests, attitudes, capacities, abilities and aptitudes.

2. The term, "Adjustment," refers to the dynamic equilibrium of the total organism or personality.


4. The term, "Social Science," refers to those subjects which deal with the relationships of human beings. These subjects may include Economics, Geography, History, Political Science, Sociology, and Education.

Summary of Related Literature.— From the related literature presented in this study, the writer has integrated the highlights of dimensions of personality, nature of biological content, and related studies, and presented them in the following review.

Munn states that sample personality traits are intelligence, aptitude, emotionality, introversion, dominance, pugnacity, vivacity and sociability.

Cruse believes that it should be recognized that the development of personality is an extremely complex process; much more complicated than the development of specific skills and habits. He also believes that some traits are the result of deliberate training provided by parents and teachers.
but most of our personality characteristics are undoubtedly the result of non-deliberate trial-and-error learning.

Williams and Snyder state that, throughout the life cycle continuous changes within the organism constitute this growth process.

With regard to personality characteristics, Carmichael states that the personality characteristics of adults have a relatively high degree of consistency. They tend to remain throughout life.

Young believes that one measure of the maturity of the individual is the degree to which his traits, attitudes, sentiments, values and ideals become integrated into a large philosophy of life.

Thorndike states that among the personality tests used up to now, the majority are autobiography or questionnaire.

Summary of Findings.—Analysis of the data in this study yielded the following findings:

1. The morale of the Natural Science group and morale of the Social Science group was represented by an obtained mean of each group. When the difference between the means was treated statistically the critical ratio was 2.4. Operation at the .01 level of confidence indicated that there was no significant difference between the means for the two groups.

2. Social adjustment of the Natural Science groups and social adjustment of the Social Science group was represented by an obtained mean of each group. When the difference between the means was treated statistically the critical ratio was .49. Operation at the .01 level of confidence indicated that there was no significant difference between the means for the two groups.
3. Family relations of the Natural Science groups and family relations of the Social Science group was represented by an obtained mean of each group. When the difference between the means was treated statistically the critical ratio was .86. Operation at the .01 level of confidence indicated that there was no significant difference between the means for the groups.

4. Emotionality of the two groups was represented by an obtained mean for each group. When the difference between the means was treated statistically the critical ratio was 2.4. Operation at the .01 level of confidence indicated that there was no significant difference between the means for the two groups.

5. Economic conservatism of the Natural Science group and economic conservatism of the Social Science was represented by an obtained mean for each group. When the difference between the means was treated statistically the critical ratio was .09. Operation at the .01 level of confidence indicated that there was no significant difference between the means for the two groups.

Conclusions.— The major findings of the study led to these concluding statements which answer the purposes of the study.

1. In individual adjustment, morale, social adjustment, family relations, emotionality and economic conservatism of the Natural Science and Social Science majors showed no significant differences; hence, the present study gave no support to the belief that certain patterns or levels of personality organization are peculiar to either of the groups.

2. In general, these two groups of Natural and Social Science majors maintained an average personality development.
Implications and Recommendations.— The findings and conclusions appear to warrant the following implications and recommendations:

1. There are apparently no significant factors inherent in the methodology, content, rationale, or other experiences associated with the teaching-learning situation for Social Science and Natural Science majors at the undergraduate level which tilt or otherwise produce differentials in personality structure.

2. There is need for further study in this area involving—
   a. Undergraduate students at other institutions
   b. Graduate students
   c. In-service teachers at the elementary, secondary, collegiate and university levels.

3. There is need for further study in this area involving different tests, changed designs, and introducing other variables such as intelligence, achievement, and the like.
BIBLIOGRAPHY

Books


Theses

**MINNESOTA PERSONALITY SCALE**

*(For Women)*

**JOHN G. DARLEY**
University of Minnesota

**WALTER J. McNAMARA**
International Business Machines Corporation

**Explanation:** The following pages contain a number of statements about which there is no general agreement. People differ in the way they feel about the statements, and there are no right or wrong answers. We are trying to study certain aspects of personality that are important in your adjustment to school and to life. You can help us by answering each question honestly and thoughtfully. Happiness and satisfying achievement are definitely related to your personal adjustments; therefore, any effort to study this aspect of your life is worth your cooperation.

**Directions:** Read each statement carefully and on the Special Answer Sheet mark the one alternative which best expresses your feeling about the statement. Whenever possible, let your own personal experience determine your answer. Do not spend too much time on any item. If in doubt, select the one phrase which seems most nearly to express your present feeling about the statement. Put your answers on the answer sheet by blackening the space between the pair of dotted lines under the letter which represents your answer. Try the samples below and put your answers on the answer sheet in the box marked SAMPLES.

**Samples:** Some statements are like the following:

(a) City streets should permit one way traffic only.

You are to choose one of the following alternatives to indicate your answer:

(SA) Strongly Agree (A) Agree (U) Undecided (D) Disagree (SD) Strongly Disagree

Above the pairs of dotted lines on the answer sheet are the initial letters of the above alternates to help you mark your answer in the correct space. Now try sample (b) and mark your answer in the same way.

(b) Local and national elections should not be held at the same time.

Some statements are like the following:

(c) Do you study for examinations with a group of fellow students?

Your answer to these questions is to be chosen from one of these alternatives.

(AA) Almost Always (F) Frequently (O) Occasionally (R) Rarely (AN) Almost Never

(d) Do you go to the school’s important football games?

On the answer sheet, each Part of the Scale will have the alternative answers printed in full at the top of the columns. The initial letters of the alternatives will appear above the pairs of dotted lines to help you locate the pair of dotted lines in which to mark your answer for each item.

Be sure the Item Number on the Answer Sheet Correlates with the Item Number in the Booklet.
PART I

Work rapidly. Be sure to answer every item by choosing one of the following alternatives.

(SA) Strongly Agree
(A) Agree
(U) Undecided
(D) Disagree
(SD) Strongly Disagree

1. Almost anything can be fixed up in the courts if you have enough money.
2. The joys of family life are much overrated.
3. Life is just a series of disappointments.
4. No one cares much what happens to you.
5. On the whole, policemen are honest.
6. Education helps a person to use his leisure time to better advantage.
7. The young man of today can expect much of the future.
8. There is little chance for advancement in industry and business unless a man has an unfair pull.
9. A high school education is worth all the time and effort it requires.
10. The day is not long enough to do one’s work well and have any time for fun.
11. It does not take long to get over feeling gloomy.
12. Education is of no help in getting a job today.
13. Laws are so often made for the benefit of small selfish groups that a man cannot respect the law.
14. Public money spent on education during the past few years could have been used more wisely for other purposes.
15. School training is of little help in meeting the problems of real life.
16. Most people can be trusted.
17. The future looks very black.
18. Life is just one worry after another.
19. A man can learn more by working four years than by going to high school.
20. On the whole, lawyers are honest.
21. One’s parents usually treat him fairly and sensibly.
22. Court decisions are almost always just.
23. It is difficult to think clearly these days.
24. On the whole, judges are honest.
25. The law protects property rights at the expense of human rights.
26. The sentences of judges in courts are determined by their prejudices.
27. Education only makes a person discontented.
28. These days one is inclined to give up hope of amounting to something.
29. There is really no point in living.
30. Education is more valuable than most people think.

Do not stop. Go on to the next page.
31. It is all right for a person to break the law if he doesn't get caught.
32. A man should tell the truth in court, regardless of the consequences.
33. A hungry man has a right to steal.
34. Most young people are getting too much education.
35. Only subjects like reading, writing and arithmetic should be taught at public expense.
36. A person is justified in giving false testimony to protect a friend on trial.
37. Success is more dependent on luck than on real ability.
38. It is great to be living in these exciting times.
39. Personal circumstances should never be considered an excuse for breaking the law.
40. Savings spent on education are wisely invested.
41. An educated man can advance more rapidly in business and industry.
42. High school courses are too impractical.
43. Real friends are as easy to find as ever.
44. Our schools encourage an individual to think for himself.

PART II

Work rapidly. Be sure to answer every item by choosing one of the following alternatives.

(AA) Almost Always
(F) Frequently
(O) Occasionally
(R) Rarely
(AN) Almost Never

Begin with No. 45 on the answer sheet.

45. Are you eager to make new friends?
46. Do you enjoy entertaining people?
47. Do you find it easy to keep up your courage?
48. Do you have a fairly good time at parties?
49. Do you dislike social affairs?
50. Do you feel self-conscious with strangers?
51. Do you find it easy to make friendly contacts with members of the opposite sex?
52. Do you stay in the background at parties or social gatherings?
53. Are you able to recover quickly from social blunders?
54. Do you like to mix with people socially?
55. Do you like to meet new people?

Do not stop. Go on to the next page.
56. Do you participate easily in ordinary conversation?
57. Do you enjoy speaking before groups of people?
58. Do you feel self-conscious when volunteering to take part in games or other organized activities?
59. Do you take an active part in the entertainment at parties?
60. At an important dinner, would you do without something rather than ask to have it passed?
61. Do you cross the street to avoid meeting people you know?
62. Do you feel self-conscious when reciting in class?
63. Do you feel at ease with people?
64. Do you meet strangers easily?
65. Do you avoid people when it is possible?
66. Do you lose self-confidence easily?
67. Do you seek to meet the important person present at a reception or tea?
68. Are you embarrassed because of lack of experience in social situations?
69. Do you hesitate to enter a room by yourself when a group of people are sitting around the room talking together?
70. Do you have difficulty in talking to most people?
71. Do you have the time of your life at social affairs?
72. Do you get along as well as the average person in social activities?
73. Are you well poised in social contacts?
74. If a party is dull, do you take the lead in enlivening it?
75. Do you find it easy to express your ideas?
76. Do you have difficulty saying the right thing at the right time?
77. Are you rather shy in contacts with people?
78. Do you become self-conscious readily?
79. Do you find it easy to act naturally at a party?
80. Are you indifferent to ordinary social contacts?
81. Do you have difficulty in starting a conversation with a person who has just been introduced?
82. Do you have much difficulty in thinking of an appropriate remark to make in group conversation?
83. Are you indifferent to people?
84. Do you find it easy to get along with people?
85. Are you embarrassed when meeting new people?
86. Do you feel that social affairs are not serious enough for you to enjoy?
87. After being caught in a mistake, do you find it hard to do good work for a while?
88. Can you keep people from taking advantage of you?
89. Are you the center of favorable attention at a party?
90. Are you nervous and ill at ease with most people?

Do not stop. Go on to the next page.
91. Do you prefer to limit your social contacts to a few friends?
92. Do you find it easy to get your own way in most situations?
93. Do you prefer to limit your social life to members of your own family?
94. Do you find it easy to have a good time at a party?
95. Are you annoyed by social activities?
96. Do you find that it is easy to be "the life of a party"?
97. Can you keep cool in important situations?
(Skip numbers 98 to 105 on the answer sheet)

PART III

Work rapidly. Be sure to answer every item by choosing one of the following alternatives.

(AA) Almost Always
(F) Frequently
(O) Occasionally
(R) Rarely
(AN) Almost Never

Begin with No. 106 on the answer sheet.

106. Are the members of your family too curious about your personal affairs?
107. Is it hard for you to keep a pleasant disposition at home?
108. Do you become nervous at home?
109. Can you trust the people in your family?
110. Is your home a very pleasant place?
111. Do you and your parents live in different worlds, so far as ideas are concerned?
112. Do you feel most contented at home?
113. Do your parents too often expect you to obey them, now that you are grown up?
114. Would your parents keep faith in you even though you could not find work?
115. Does either of your parents criticize you unjustly?
116. Was your father your ideal of manhood?
117. Have you felt that either of your parents did not understand you?
118. Does either of your parents find fault with your conduct?
119. Is either of your parents easily irritated?
120. Have you had to keep quiet or leave the house to have peace at home?
121. Has either of your parents certain personal habits which irritate you?
122. Have you felt that your friends have had happier home lives than you?
123. Have the actions of either parent aroused great fear in you?
124. Have there been family quarrels among your near relatives?
125. Have you disagreed with your parents about your choice of a life work?

Do not stop. Go on to the next page.
126. Do your parents seem too old-fashioned in their ideas?
127. Do your parents expect too much from you?
128. Would you sacrifice everything for your family?
129. Do you discuss important plans with members of your family?
130. Do you feel you owe your greatest obligation to your family?
131. Do you find less understanding at home than elsewhere?
132. Have you disagreed with your parents about the way in which work around the home should be done?
133. Has lack of money tended to make home unhappy for you?
134. Does either of your parents get angry easily?
135. Do your parents fail to recognize that you are a mature person and treat you as if you were still a child?
136. Has there been a lack of real affection and love in your home?
137. Has either of your parents insisted on obedience regardless of whether or not the request was reasonable?
138. Do you love your mother more than your father?
139. Have you had a strong desire to run away from home?
140. Have your parents objected to the kind of companions you go around with?
141. Is either of your parents very nervous?

**PART IV**

Work rapidly. Be sure to answer every item by choosing one of the following alternatives.

- (AA) Almost Always
- (F) Frequently
- (O) Occasionally
- (R) Rarely
- (AN) Almost Never

Begin with No. 142 on the answer sheet.

142. Does criticism disturb you greatly?
143. Are your feelings easily hurt?
144. Do you get angry easily?
145. Were you ill much of the time during childhood?
146. Do things go wrong for you from no fault of your own?
147. Are you sorry for the things you do?
148. Do you feel just miserable?
149. Do ideas run through your head so that you can not sleep?
150. Do you feel self-conscious because of your personal appearance?

Do not stop. Go on to the next page.
151. Are your eyes very sensitive to light?
152. Do you have ups and downs in mood without apparent cause?
153. Do you get discouraged easily?
154. Are you bothered by the feeling that things are not real?
155. Do you consider yourself a rather nervous person?
156. Do you worry too long over humiliating experiences?
157. Do you feel fatigued when you get up in the morning?
158. Do you have spells of the "blues"?
159. Have you been depressed because of low marks in school?
160. Do you worry over possible misfortunes?
161. Do you daydream?
162. Do you feel very tired towards the end of the day?
163. Do you envy the happiness that others seem to enjoy?
164. Does it frighten you when you have to see a doctor about some illness?
165. Do you have conflicting moods of love and hate for members of your family?
166. Do you get upset easily?
167. Do you feel lonesome, even when you are with people?
168. Do you get excited easily?
169. Do you have difficulty getting to sleep even when there are no noises to disturb you?
170. Do you feel that your parents are disappointed in you?
171. Are you frightened by lightning?
172. Do you have difficulty in breathing through your nose?
173. Do you take cold rather easily from other people?
174. Do you have headaches?
175. Has it been necessary for you to have medical attention?
176. Do you find it necessary to watch your health carefully?
177. Do you feel tired most of the time?
178. Have you been ill during the last ten years?
179. Do you have difficulty in getting rid of a cold?
180. Do you suffer discomfort from gas in the stomach or intestines?
181. Do you have colds?
182. Are you subject to eye strain?
183. Have you been absent from school because of illness?
184. Does some particular useless thought keep coming into your mind to bother you?
185. Do you have shooting pains in the head?

Do not stop. Go on to the next page.
PART V

Work rapidly. Be sure to answer every item by choosing one of the following alternatives.

(SA) Strongly Agree
(A) Agree
(U) Undecided
(D) Disagree
(SD) Strongly Disagree

Begin with No. 186 on the answer sheet.

186. If our economic system were just, there would be much less crime.
187. It is better to buy milk from private companies than from cooperatives.
188. Laborers in mass production industries should stay out of the C. I. O.
189. On the whole our economic system is just and wise.
190. Municipal power plants should be built to compete with private utilities.
191. The amount of profit which a business can make should be regulated by the government.
192. A man should be allowed to keep as large an income as he can get.
193. A man should strike in order to secure greater returns to labor.
194. Poverty is chiefly a result of injustice in the distribution of wealth.
195. Private ownership of property is necessary for economic progress.
196. Pickets arrested for blocking the entrance to a factory should be fined heavily.
197. School teachers who openly approve of labor unions and socialistic ideas should be dismissed.
198. It is more economical to buy gasoline from cooperatives than from the regular filling stations.
199. Large incomes should be taxed much more than they are now.
200. The philanthropy of rich men more than compensates for the irregular practices they may have used to acquire their wealth.
201. Private doctors should encourage trends towards socialized medicine.
202. Money should be taken from the rich and given to the poor during hard times.
203. Cooperative housing plans should be encouraged.
204. “Consumer’s Union” and “Consumer’s Research” are fair and reliable buying guides.
205. Big industries should be taxed more heavily.
206. Labor should have much more voice in deciding government policies.
207. The government ought to guarantee a living to those who can’t find work.
208. The incomes of most people are a fair measure of their contribution to human welfare.
209. Sit-down strikes should not be tolerated.
210. Labor does not get its fair share of what it produces.
211. When a rich man dies, most of his property should go to the state.
212. The government should take over all large industries.
213. The government should not attempt to limit profits.
214. The growth of consumer cooperatives should be stopped.
215. Our economic system is criticized too much.
216. Income taxes in the higher brackets should be raised.
217. Most great fortunes are made honestly.

(Omit number 218 on the answer sheet)
DO NOT WRITE IN THIS BOOKLET
(Use special answer sheet for marking your answers)

MINNESOTA PERSONALITY SCALE
(For Men)

 JOHN G. DARLEY
 University of Minnesota

 WALTER J. McNAMARA
 International Business Machines Corporation

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Samples: Some statements are like the following:
(a) City streets should permit one way traffic only.
   You are to choose one of the following alternatives to indicate your answer:
   (SA) Strongly Agree (A) Agree (U) Undecided (D) Disagree (SD) Strongly Disagree
   Above the pairs of dotted lines on the answer sheet are the initial letters of the above alternates to help you mark your answer in the correct space. Now try sample (b) and mark your answer in the same way.

(b) Local and national elections should not be held at the same time.

Some statements are like the following:
(c) Do you study for examinations with a group of fellow students?
   Your answer to these questions is to be chosen from one of these alternatives.
   (AA) Almost Always (F) Frequently (O) Occasionally (R) Rarely (AN) Almost Never

(d) Do you go to the school's important football games?

On the answer sheet, each Part of the Scale will have the alternative answers printed in full at the top of the columns. The initial letters of the alternatives will appear above the pairs of dotted lines to help you locate the pair of dotted lines in which to mark your answer for each item.

Be sure the Item Number on the Answer Sheet Corresponds with the Item Number in the Booklet.

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The Psychological Corporation
522 Fifth Avenue, New York, N. Y.
PART I

Work rapidly. Be sure to answer every item by choosing one of the following alternatives.

(SA) Strongly Agree
(A) Agree
(U) Undecided
(D) Disagree
(SD) Strongly Disagree

1. Almost anything can be fixed up in the courts if you have enough money.
2. The joys of family life are much overrated.
3. Life is just a series of disappointments.
4. No one cares much what happens to you.
5. On the whole, policemen are honest.
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9. A high school education is worth all the time and effort it requires.
10. The day is not long enough to do one's work well and have any time for fun.
11. A high school education makes a man a better citizen.
12. Education is of no help in getting a job today.
13. Laws are so often made for the benefit of small selfish groups that a man cannot respect the law.
14. School training is of little help in meeting the problems of real life.
15. The future looks very black.
16. Life is just one worry after another.
17. A man can learn more by working four years than by going to high school.
18. On the whole, lawyers are honest.
19. One's parents usually treat him fairly and sensibly.
20. So many people do things well that it is easy to become discouraged.
21. Court decisions are almost always just.
22. It is difficult to think clearly these days.
23. On the whole, judges are honest.
24. There are too many fads and frills in modern education.
25. The law protects property rights at the expense of human rights.
26. Any man with ability and willingness to work hard has a good chance of being successful.
27. The sentences of judges in courts are determined by their prejudices.
28. Education only makes a person discontented.
29. These days one is inclined to give up hope of amounting to something.
30. There is really no point in living.

Do not stop. Go on to the next page.
31. Education is more valuable than most people think.
32. It is all right for a person to break the law if he doesn’t get caught.
33. A hungry man has a right to steal.
34. Only subjects like reading, writing and arithmetic should be taught at public expense.
35. Success is more dependent on luck than on real ability.
36. Savings spent on education are wisely invested.
37. An educated man can advance more rapidly in business and industry.
38. A person who reports minor law violations is only a trouble maker.
39. A good education is a great comfort to a man out of work.
40. Violators of the law are nearly always detected and punished.
   (Skip numbers 41 to 44 on the answer sheet)

**PART II**

Work rapidly. Be sure to answer every item by choosing one of the following alternatives.

(AA) Almost Always
(F) Frequently
(O) Occasionally
(R) Rarely
(AN) Almost Never

Begin with No. 45 on the answer sheet.

45. Are you eager to make new friends?
46. Do you enjoy entertaining people?
47. Do you find it easy to keep up your courage?
48. Do you have a fairly good time at parties?
49. Do you dislike social affairs?
50. Do you feel self-conscious with strangers?
51. Do you find it easy to make friendly contacts with members of the opposite sex?
52. Do you stay in the background at parties or social gatherings?
53. Are you able to recover quickly from social blunders?
54. Do you like to mix with people socially?
55. Do you like to meet new people?
56. Do you participate easily in ordinary conversation?
57. Do you enjoy speaking before groups of people?
58. Do you feel self-conscious when volunteering to take part in games or other organized activities?
59. Do you take an active part in the entertainment at parties?

Do not stop. Go on to the next page.
60. At an important dinner, would you do without something rather than ask to have it passed?
61. Do you cross the street to avoid meeting people you know?
62. Do you feel self-conscious when reciting in class?
63. Do you feel at ease with people?
64. Do you meet strangers easily?
65. Do you avoid people when it is possible?
66. Do you lose self-confidence easily?
67. Do you seek to meet the important person present at a reception or tea?
68. Are you embarrassed because of lack of experience in social situations?
69. Do you hesitate to enter a room by yourself when a group of people are sitting around the room talking together?
70. Do you have difficulty in talking to most people?
71. Do you have the time of your life at social affairs?
72. Do you get along as well as the average person in social activities?
73. Are you well poised in social contacts?
74. If a party is dull, do you take the lead in enlivening it?
75. Do you find it easy to express your ideas?
76. Do you have difficulty saying the right thing at the right time?
77. Are you rather shy in contacts with people?
78. Do you become self-conscious readily?
79. Do you find it easy to act naturally at a party?
80. Are you indifferent to ordinary social contacts?
81. Do you have difficulty in starting a conversation with a person who has just been introduced?
82. Do you enjoy trying to persuade people to do things?
83. Do you feel embarrassed when entering a public assembly after everyone else has been seated?
84. Do you like to know a great many people intimately?
85. Do you engage fellow travelers in conversation when riding on a train or bus?
86. Would you feel very self-conscious if you had to volunteer an idea to start a discussion among a group of people?
87. Have you been responsible for making plans and directing the actions of other people?
88. Do you prefer to participate in activities leading to friendships with many people?
89. Do you like to take the initiative in making friends?
90. Would you prefer to stand or leave rather than take a front seat if you come late to a meeting?
91. Do you feel very conspicuous in a group of people?
92. Do you find it hard to do your best when people are watching?
93. Do you have much difficulty in thinking of an appropriate remark to make in group conversation?
94. Are you at ease with older people?

Do not stop. Go on to the next page.
95. Are you upset when a teacher calls on you unexpectedly?
96. Are you indifferent to people?
97. Do you like to participate in many social activities?
98. Do you find it difficult to start a conversation with a stranger?
99. Do you hesitate to volunteer in class recitation?
100. Do you feel embarrassed to ask permission to leave a group of people?
101. Do you find it easy to get along with people?
102. You may know the answer to a question, but do you fail when called upon because of fear of speaking before the class?
103. Do you feel you must have many social contacts to be happy?
104. Are you embarrassed when meeting new people?
105. Do you find it very difficult to speak in public?

**PART III**

Work rapidly. Be sure to answer every item by choosing one of the following alternatives.

(AA) Almost Always
(F) Frequently
(O) Occasionally
(R) Rarely
(AN) Almost Never

Begin with No. 106 on the answer sheet.

106. Are the members of your family too curious about your personal affairs?
107. Is it hard for you to keep a pleasant disposition at home?
108. Do you become nervous at home?
109. Can you trust the people in your family?
110. Is your home a very pleasant place?
111. Do you and your parents live in different worlds, so far as ideas are concerned?
112. Do you feel most contented at home?
113. Do your parents too often expect you to obey them, now that you are grown up?
114. Would your parents keep faith in you even though you could not find work?
115. Does either of your parents criticize you unjustly?
116. Was your father your ideal of manhood?
117. Have you felt that either of your parents did not understand you?
118. Does either of your parents find fault with your conduct?
119. Is either of your parents easily irritated?
120. Have you had to keep quiet or leave the house to have peace at home?

Do not stop. Go on to the next page.
121. Has either of your parents certain personal habits which irritate you?
122. Have you felt that your friends have had happier home lives than you?
123. Do you feel that your family obligations are a great handicap?
124. Have your parents been unduly strict with you?
125. Have there been family quarrels among your near relatives?
126. Have you disagreed with your parents about your choice of a life work?
127. Do your parents seem too old-fashioned in their ideas?
128. Do your parents expect too much from you?
129. Do you find less understanding at home, than elsewhere?
130. Have you disagreed with your parents about the way in which work around the house should be done?
131. Does either of your parents get angry easily?
132. Do your parents fail to recognize that you are a mature person and treat you as if you were still a child?
133. Has either of your parents insisted on obedience regardless of whether or not the request was reasonable?
134. Have you had a strong desire to run away from home?
135. Have your parents objected to the kind of companions you go around with?

(Skip numbers 136 to 141 on the answer sheet)

PART IV

Work rapidly. Be sure to answer every item by choosing one of the following alternatives.

(AA) Almost Always
(F) Frequently
(O) Occasionally
(R) Rarely
(AN) Almost Never

Begin with No. 142 on the answer sheet.

142. Does criticism disturb you greatly?
143. Are your feelings easily hurt?
144. Do things go wrong for you from no fault of your own?
145. Are you sorry for the things you do?
146. Do you feel just miserable?
147. Are you troubled with the idea that people are watching you on the street?
148. Do ideas run through your head so that you can not sleep?
149. Do you feel self-conscious because of your personal appearance?
150. Are your eyes very sensitive to light?

Do not stop. Go on to the next page.
151. Do you have ups and downs in mood without apparent cause?
152. Do you get discouraged easily?
153. Do you consider yourself a rather nervous person?
154. Do you worry too long over humiliating experiences?
155. Do you feel fatigued when you get up in the morning?
156. Do you have spells of the "blues"?
157. Have you been depressed because of low marks in school?
158. Do you have skin diseases or skin eruptions, such as athlete's foot, carbuncles or boils?
159. Do your teeth seem to need dental attention?
160. Do you worry over possible misfortunes?
161. Do you daydream?
162. Are you troubled with feelings of inferiority?
163. Do you feel very tired towards the end of the day?
164. Do you envy the happiness that others seem to enjoy?
165. Do you come to your meals without being really hungry?
166. Do you get upset easily?
167. Do you feel lonesome, even when you are with people?
168. Do you get excited easily?
169. Do you have difficulty getting to sleep even when there are no noises to disturb you?
170. Do you feel that your parents are disappointed in you?
171. Do you take cold rather easily from other people?
172. Do you find it necessary to watch your health carefully?
173. Do you have difficulty in getting rid of a cold?
174. Do you have colds?
175. Are you subject to eye strain?
176. Does some particular useless thought keep coming into your mind to bother you?

(Skip numbers 177 to 185 on the answer sheet)
PART V

Work rapidly. Be sure to answer every item by choosing one of the following alternatives.

(SA) Strongly Agree
(A) Agree
(U) Undecided
(D) Disagree
(SD) Strongly Disagree

Begin with No. 186 on the answer sheet.

186. If our economic system were just, there would be much less crime.
187. Laborers in mass production industries should stay out of the C.I.O.
188. On the whole our economic system is just and wise.
189. People should not patronize stores that are being picketed by labor unions.
190. Municipal power plants should be built to compete with private utilities.
191. When property damage and personal violence accompany labor strikes, citizens should help the employers and public officials maintain law and order.
192. The amount of profit which a business can make should be regulated by the government.
193. A man should be allowed to keep as large an income as he can get.
194. Selling guns and tear gas to factories and industrial plants is a dishonorable job.
195. A man should strike in order to secure greater returns to labor.
196. Poverty is chiefly a result of injustice in the distribution of wealth.
197. Private ownership of property is necessary for economic progress.
198. Pickets arrested for blocking the entrance to a factory should be fined heavily.
199. School teachers who openly approve of labor unions and socialist ideas should be dismissed.
200. Large incomes should be taxed much more than they are now.
201. The philanthropy of rich men more than compensates for the irregular practices they may have used to acquire their wealth.
202. Private doctors should encourage trends towards socialized medicine.
203. Money should be taken from the rich and given to the poor during hard times.
204. Cooperative housing plans should be encouraged.
205. Labor should have much more voice in deciding government policies.
206. The government ought to guarantee a living to those who can't find work.
207. Men would not do their best, if government owned all industry.
208. Sit-down strikes should not be tolerated.
209. Labor does not get its fair share of what it produces.
210. When a rich man dies, most of his property should go to the state.
211. The government should take over all large industries.
212. Student clubs to discuss communism should not be allowed in universities.
213. The government should not attempt to limit profits.
214. The growth of consumer cooperatives should be stopped.
215. Our economic system is criticized too much.
216. Income taxes in the higher income brackets should be raised.
217. Without sweeping changes in our economic system, little progress can be made in the solution of social problems.
218. Most great fortunes are made honestly.