A STUDY OF ATTITUDES OF JUNIOR HIGH SCHOOL STUDENTS
AND OF ADULT MEN AND WOMEN OF A SMALL
CITY TOWARD SOCIALLY
UNDESIRABLE
CONDUCT

A THESIS
SUBMITTED TO THE DEPARTMENT OF
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MASTER OF SCIENCE

By
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INTRODUCTION

Purpose: The purpose of this study is to determine the degree of seriousness with which junior high school students and adult citizens hold certain forms of socially undesirable conduct, and to compare the two groups with respect to each type of conduct. Stated more specifically, the purpose or aim of this investigation is to throw some light upon the following questions: Do the children of junior high have the same attitude toward honesty as the adults in the same community, or should one expect a difference, and if so, where does the difference lie? What is the extent of such difference? Can attitudes such as those toward honesty be measured or compared? If so, how would a person go about it? Is it possible to construct a scale which will show the relative seriousness with which various types of socially undesirable forms of conduct are held?

It is frequently stated that the younger generation is deficient, that it is "going to the dogs," or that its whole make-up has changed; that young people of today lack the proper perspective toward social problems. It may be that the adults have changed their attitudes as they have grown older. Thus one of the aims of this study is to compare the attitudes of junior high school students with those of adults of the same community regarding certain forms of socially undesirable conduct. The other major aim is to construct a scale of values for these forms of behavior.

Historical Introduction: The need for accurate measurement in the field of personality is just as necessary as it is recog-
nized to be in the field of intelligence. Within the last fifteen or twenty years progress has been made in devising tests. One important difference between intelligence tests and personality tests is that the trend has been toward a general intelligence test, while measurement in personality has been along specific lines. Furthermore, tests designed to measure intelligence have been much more successful than were the earlier tests which were designed to measure specific functions such as memory, attention, reasoning, and the like. This is probably accounted for by what now seems to be a fact, namely, that intelligence is unitary in character or at least that the abilities of which it is composed are more highly correlated. This, however, is not the case with personality. The various factors of which it is composed are not highly correlated. For example, honesty is not necessarily associated with a pleasing disposition. Morality is not always associated with emotional stability. As a matter of fact, personality, which may be defined as the sum-total of behavior tendencies, is highly complex.

A person may rank very high in certain phases of his personality and at the same time rank very low or mediocre in others. A concept of general personality is virtually meaningless; consequently testing in the field of personality has been directed more especially along specific lines. For example, we now have a number of tests designed to measure the following aspects of personality, namely, attitudes, emotional stability, temperament, nervous instability, beliefs, moral judgments, conduct, and the like.
In order to accomplish these ends several testing techniques have been designed such as (1) The Questionnaire Method, (2) The Ranking Method, (3) The Case Method, (4) The Rating Method, (5) The Method of Equal Appearing Intervals, and (6) The Method of Paired Comparison. Since the present study is devoted to the subject of attitudes, a brief description of the tests in this field will follow, but before going directly into the discussion of attitude measurement some qualification or definition of the term "attitude" is indicative.

Symonds\(^1\) has mentioned several common meanings of the term:

1. Great organic drives, purposes, motives;
2. Muscular adjustment;
3. Generalized conduct;
4. Neural set or readiness to adjust;
5. Emotional responses;
6. Feelings; and
7. Verbal accepting or rejecting responses. In (4) Symonds agrees with Thomas and Zaniecki\(^2\), Park and Burgess\(^3\), Faris\(^4\), Bogardus\(^5\), House\(^6\), and

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Lundberg⁷ that attitude is a neural set of readiness to adjust. Perhaps this is the most prevalent use of the term, although Bernard⁸ refers to it as the preparatory movement or partial adjustment idea; Bain⁹ refers to attitude as the relatively stable overt status-getting response; and Markey¹⁰ criticizes all the above-named definitions with his conclusion that attitudes are behavior integrations associated with signs and symbols of probable behavior. After wading through this maize of definitions the writer is inclined to accept a more simplified, yet similar, definition of the term which has been suggested by Bain¹¹ in a later article where he defines attitudes as socially conditioned patterns of motivation. He claims that a conditioned action pattern is as much a drive, and is as dynamic a motivation as a raw instinct.¹²

There are two possible approaches to the study of attitudes. One is subjective, whereby a person is asked how he feels about the topic in question; while the other is objective, e.g., his

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¹² Ibid.
behavior is observed. Based upon the former we may assume that he feels the way he says he does, and that he will act the way he feels; while the latter may lead us to believe he feels the way he acts; but just how true our assumptions are can only be determined by employing both approaches and deriving correlations between the two groups of data. Some attempts have been made to determine the degree of correlation between verbal responses and actual behavior by Zimmerman\textsuperscript{13}, Hartshorne and May\textsuperscript{14}, and Terman\textsuperscript{15}. There is quite a range in such correlations, depending upon whether they are on tabooed subjects or not. Some of the correlations between verbal attitudes and actual behavior are in the .90's, while others are much lower. Most authors agree that there can be no great dependence upon a close relationship between verbal attitudes and actual behavior. It must be determined quantitatively for any particular study.

Since most of the investigations deal with the measurement of verbal attitudes, and since studies of actual behavior have a tendency to stray at greater tangents from the subject at hand, e.g., the measurement of attitudes, the present discussion will deal more directly with a general analysis of ways of measuring


attitudes verbally expressed. It is necessary to limit further the subject by excluding studies concerning traits which do not have a definite object of reference, such as introversion, ascendency, aggressiveness, etc.

In addition to the present discussion similar and more complete accounts of methods of measuring attitudes have been made by Bain\textsuperscript{16}, Clark\textsuperscript{17}, Drobali, Folsom\textsuperscript{19}, Katz and Allport\textsuperscript{20}, Lundberg\textsuperscript{21}, Murphy\textsuperscript{22}, Rice\textsuperscript{23}, and Thurstone\textsuperscript{24}. The methods of attitude measurement are numerous and confusing, and if one attempted to list and explain all of them, it would be an endless process. They will, therefore, be discussed in a more general way under the following headings which were previously mentioned: (1) The Questionnaire Method, (2) The Ranking Method, (3) The Case Method,


(1) **The Questionnaire Method.** Perhaps the method that has received the greatest use as well as the most abuse is the questionnaire Method. Criticisms have been hurled at it by many writers in the scientific journals, yet as time goes on it is being refined and still remains one of the most important instruments of research, especially in measuring attitudes. The fundamental procedure is a series of questions or statements selected by a few judges to represent the opinions. The statements are not scaled. They are sometimes divided into two groups to represent the favorable and unfavorable opinions. The three investigations which follow will serve to illustrate the methods.

Harper made an attempt to measure Conservatism-Liberalism-Radicalism of American educators about various beliefs and public issues. Forty-one judges composing doctors of philosophy, or highly selected educators nearing that degree were secured to render judgments on 71 statements regarding the conservatism and radicalism of the statements. Where the judges expected a larger per cent of the conservatives than the radicals to agree with the statements they marked them with a "C." If a larger per cent of radicals were thought to agree with the statements, they were marked with an "R." It so happened that twenty-five statements out of the seventy-one were marked by an "R," and the remainder

by a "C." There was an average agreement of over 98 per cent among the judges.

The questionnaire was then submitted to 3,000 educators. The following statements will serve to illustrate the type of statements used: (1) World conditions seem now to insure enduring peace among the nations, and (2) The power of huge fortunes in this country endangers democracy. The time required for answering the questionnaire was 30 minutes. The instructions were to mark the statements with a plus sign, if the subject agrees with it more fully than he disagrees. If he disagrees with the statement more fully than he agrees, he is asked to mark the statement with a minus sign. The raw scores were transmuted into scaled scores of 675 representative educators.

The reliability of the questionnaire was determined by deriving correlations between scores on halves of the questionnaire. Such correlations ranged from .75 to .81 for three different groups. Correlation between the scores obtained from the same group with a three-week's interval was .90. Twenty-nine judges were asked to render judgments upon the consistency of the markings of thirty groups of the statements selected at random from the original list. Where the first statement in a group was marked with a plus sign, the judge was instructed to mark the other statements in the group with a sign consistent with the first mark. The inconsistency score was the number of inconsistencies avoidable through guessing.

Zeleny measured social opinions of students. Her state-

ments were phrased both in "forward" and "reverse" manner. The statements which were finally used in testing were those that were consistently answered in both forward and reverse order. The statements were referred to seven faculty members for criticism, and then 34 were retained in two forms, making a total of 68 statements such as: "True patriots are always loyal to their political parties" (forward), "True patriots are sometimes disloyal to their political parties" (reverse), and "There should be a minimum wage law" (forward), "Minimum wage laws are unwise" (reverse).

The instructions were that each statement was to be marked either true or false by underlining one of the phrases. Where the subject was unable to express opinion, he was instructed to draw no line. The individual score was the total number right. The reliability of the questionnaire was .89.

Watson has constructed a test designed to measure the attitudes of Occident toward Orient or opinions of Americans about China, Japan, and other Eastern nations. Statements representing the opinions were first formulated by Watson and Mr. Keeney. Then about twelve Americans and Orientals were asked to pass judgments on them. The resulting 300 items were criticized by 20 competent judges. One hundred best items were selected on the basis of frequency of choice by judges. Two sample statements are: "Japan's attitude in her relation with the United States in the last five years has been finer than our attitude toward

her," and "We should be willing to let American investments in China be lost rather than be drawn into armed conflict in China."

The questionnaire was divided into two parts. The first part required 15 minutes, the second 30 minutes. The subject was asked to check one of the five answers: (1) absolutely true, (2) probably true, (3) doubtful, (4) probably false, (5) absolutely false. Scores were expressed in terms of percentages of the five answers, and profiles of opinion were plotted for each of the various American groups.

(2) The Ranking Method. In general there are two main branches of the ranking method, e.g., (1) the subject is asked to arrange in order of merit a number of items—for example nationalities—representing the objects or issues toward or against which the attitude is directed. The arrangement is based on the degree of opinion or attitude with reference to the object. (2) In the second type items to be arranged in order do not represent the object or issue toward or against which the attitude is directed, but represent the expressions of the attitude itself. For instance, statements representing different degrees of "wetness" and "dryness" on the prohibition question are prepared for arrangement on a scale running from the extremely wet statements through the neutral to the extremely dry statements. The arrangement of statements in the order of merit is likewise based on the degree of opinion or attitude with respect to the object.

The first type of ranking method was used by Bogardus28 in

his study of the origins of social distance. Subjects were asked to classify a list of racial and language groups in three columns. The races toward which there was a friendly feeling were placed in the first column; in the second the races toward which a feeling of neutrality was experienced; and in the third the races whose mention aroused feelings of antipathy and dislike. Each person was then asked to re-arrange the three columns so that in column "1" were to be put first those races toward which the greatest degree of friendliness was felt and the others in order. Column "2" was to be started off with the races toward which the nearest perfect degree of neutrality was experienced, etc. In column "3" were to be put first those races toward which the greatest antipathy was experienced and the others in order of decreasing antipathy. The races studied included Englishmen, Canadians, Germans, Russians, Czechoslovakians, and the like.

Allport and Hartman29 used the second method to measure the attitude of conservatism, liberalism, radicalism, and reactionism toward seven issues: The League of Nations, qualifications of President Coolidge, distribution of wealth, the legislative control of the Supreme Court, prohibition, Ku Klux Klan, and graft in politics. Statements about the seven issues were selected from the written descriptions of opinion of 60 students. Each statement was then ranked by six judges according to the degree of attitude expressed in it and from these results seven

tests were constructed. Samples of statements used are: "We should join the League of Nations with full responsibility to prevent aggression, but should first obtain sanction for this step by a popular referendum vote," and "A two-thirds decision on the part of the Supreme Court should be necessary in order to declare a law passed by Congress unconstitutional." In administering the tests, the subjects were instructed to check one statement (in the blank space in front of the statement) which most nearly coincides with his or her view. For scoring purposes, each statement was assigned a number in order, and an individual score was the number of the statement checked.

The ranking method is sometimes referred to as (1) The Method of Absolute Ranking which is used in place of the term "Questionnaire," or as (2) The Method of Relative Ranking in which the decision of the subject about an indicator is relative to another indicator.

In The Method of Absolute Ranking the subject has to decide the degree of attitude in the case of each statement or question in the scale, without reference to other statements or questions. For example, Watson\(^30\) used a number of impersonal statements expressing attitudes toward a specific race. The subject ranks his agreement with each statement in five steps. For instance, the statement "Jews will try to get the best of a bargain even if they have to cheat to do so" is followed by the choices: All, Most, Many, Few, No. The ranking is made separately for every

statement without any reference whatsoever to another statement. For this reason the method is called "absolute." Koos\textsuperscript{31} reviewed experiments reported in seven educational periodicals during 1925-26, and found that 143 out of the 436 investigations reported (24.6 per cent) used the method which has here been referred to as "absolute ranking."

The first men to apply the method of absolute ranking to the measurement of attitudes seems to have been Moore\textsuperscript{32} and Symonds\textsuperscript{33} both of whom had the subject rank each indicator separately in two categories: either Yes or No.

The advantage of this method is that it takes a relatively short time to construct a test. The disadvantages are that only a narrow range in degree of attitudes is measured, and that it does not offer adequate units of measurement.

In the Method of Relative Ranking the subject may be asked to arrange in order of merit occupations or nationalities so that each occupation is relative to another occupation and each nationality to another nationality. The same procedure can also be applied to statements expressing attitudes toward certain topics. The method of relative ranking was used two or three decades ago for various purposes such as the study of affective values, beliefs, men of science, and shades of gray. Bogard-

\textsuperscript{31} Leonard Koos. \textit{The Questionnaire in Education.} N. Y.: Macmillan Co., 1928.


us may be said to have been the first to apply it to attitude measurement when devising his "social distance" test.

(3) The Case Method. The Case Method is an essay type of description of an attitude consisting of at least a paragraph. Bogardus asked a number of Americans to describe their attitudes toward the Filipinos. However, both oral and written descriptions may be used. If oral indicators are employed the method is referred to as informal case method or interview, but when written indicators are used the method is considered formal. The informal case method was used by Albig, Calkins, Lapiere, Lundberg, Rice, and Bogardus; while the formal method is illustrated by Coe, Lasker, Stouffer, Thomas, Vaughn, and Bogardus.

us\textsuperscript{47}, and Young\textsuperscript{48}. In either method the subject may be asked to describe his own attitude or the attitudes of his acquaintances. The latter has seldom been used due to its inexactness.

Historically the case method is the oldest of all.\textsuperscript{49} Case studies for various purposes were made long before the questionnaire studies. The application of the case method to the study of attitude measurement is, however, of rather recent origin.

One drawback of the case method is that it is of little value to quantitative analysis. It involves the description of the depth rather than the breadth of an attitude. It is better fitted to the study of the attitudes of a single individual or at most those of a relatively small group.

(4) The Rating Method. In the Rating Method the subject may be asked to rate himself, or he may be asked to rate his friends or acquaintances. One of the disadvantages of the self-rating scale is that the raters tend to overestimate their desirable attitudes and to underestimate the undesirable ones. Rat-

\begin{itemize}
  \item \textsuperscript{45} W. I. Thomas and F. Znaniecki. \textit{The Polish Peasant in Europe and America}. Chicago: Univ. Chi. Press, 1918.
  \item \textsuperscript{48} P. V. Young. "Occupational Attitudes and Values of Russian Lumber Workers." \textit{Sociol. & Soc. Res.}, 1928, vol. 12, pp. 543-553.
\end{itemize}
ing by others requires more time, but is probably more reliable than self-rating. In both forms of the rating method, however, degree of attitudes or opinions are represented along a line, with steps indicated by descriptive words or phrases, or statements. The subject simply checks the phrase or statement which he thinks most nearly represents his or his friend's attitude.

The self-rating scale was used by Rice. His scale consisted of eight steps and four descriptive words: "Radicalism," "Liberalism," "Conservatism," and "Reactionism." The scale was intended to measure attitudes toward existing social conditions. The subject was instructed to rate himself according to the four above terms, and was given an opportunity to not only indicate the proper term, but also to show the degree to which he leaned in that direction by marking an "X" above the left of the word showing a high degree, and above the middle showing moderate or slight tendency in the direction. Results were expressed in terms of frequencies of judgments for each of the eight steps on the scale.

A particular modification of the rating method is sometimes referred to as the "Graphic Rating Scale." The use of the graphic rating scale for measuring attitudes is relatively recent. The scale is made up by a line along which the steps representing the various degrees of attitudes are indicated by words, numbers, or phrases. The subject is usually instructed to check the place on the line that best represents his or his friend's attitude such

as the study conducted by Thurstone and Chave in measuring attitudes toward the church. Their graphic rating scale consisted of a horizontal line across the title page. At one end of the line was printed the phrase "Strongly favorable to the Church," at the middle of the line was printed the word "Neutral," and at the other end of the line there was printed the phrase "Strongly against the church." The subject was instructed to indicate by a cross where he estimated his own attitude to be. A correlation was calculated between the scores on the constructed statement scale and the tenth of the line on which the self-rating check occurred and was found to be .67.

Some of the advantages of the graphic rating scale are that it can be quickly filled out and can be easily scored. The numbering of the various steps may be altered at will. Several types of attitudes may be studied on several self-rating scales in a comparatively brief period of time.

(5) The Method of Equal Appearing Intervals. The Method of Equal Appearing Intervals is similar to that of Relative Ranking in administration, differing only in construction of the scale and to some extent in scoring and practical application. Statements representing attitudes are sorted into a number of piles, ranging from seven to eleven in most cases, according to the degree of attitude expressed by the statements. If in the pile farthest to the right are put the statements representing the most extreme attitude against the object in question, in the pile farthest to the left are placed those statements representing the

strongest attitude in favor of the object at issue. In the middle pile are put the statements expressing medium position on the issue. The statements are eventually arranged in such a way that the difference between the piles adjoining each other appear to the majority of subjects about the same or equal to the difference between any other two adjoining piles.

Since subjects often tend to place a statement more frequently into the end piles than into the intermediate piles, Droba\(^5\) has suggested that the whole series of statements be divided into two groups for and against an object; and he has further suggested subdividing each of the two groups according to a strong attitude "against," a mild attitude "against," a strong attitude "for," and a mild attitude "for." The subdivisions may be continued until a desired number of piles or groups are obtained.

The method of equal appearing intervals is a variation of the method of mean gradation first used by Plateau, a Belgian physicist, about the middle of the nineteenth century. It was probably first suggested by Boas, a German writer, in the second half of the last century and was later used by a number of European and American psychophysicists for the solution of psychophysical problems.\(^5\)

Chave\(^5\) and Droba\(^5\) first used this method of measuring at-

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53. Ibid.
titudes. Chave applied it to the measurement of attitudes toward the church and published his scale in collaboration with Thurstone\textsuperscript{56}, while Droba used the method for measuring attitudes toward war. Following these studies a number of other experiments were reported using the method.\textsuperscript{57}


\textsuperscript{57} The following employed The Method of Equal Appearing Intervals:


A short discussion of Droba's scale of Militarism-Pacifism is given here to illustrate further the method of equal appearing intervals. He collected 237 statements about war from books, magazines, newspapers, students' written statements, and his own resources. The longest and least clear statements were eliminated and 130 left for experimental purposes. The 300 students used were instructed to classify the 130 statements into eleven groups according to the degree of militarism and pacifism expressed in the statements. To extreme left were to be put statements expressing the extreme of militarism and to the right statements expressing the extreme of pacifism.

Forty-four statements were finally chosen on the basis of scale values and variabilities to constitute two forms of the scale such as "War is the tonic of races" and "There is no justification of war."


The time required for administration of the scale usually required but twenty minutes. The subjects were instructed to mark all statements with a plus sign with which they agreed. If a subject did not agree with a statement he was asked to mark it with a minus sign. If it appeared ambiguous and he could not decide either for or against it, he was asked to mark it with a question mark.

The scoring was based on equivalent numbers ranging from 0 to 21, number 0 being assigned to the most extremely militaristic statement and number 21 to the most extremely pacifistic statement. An individual score was the average of equivalent numbers of all the statements marked plus. The correlation between the two forms of the scale was found to be .83. The estimated reliability of the two forms combined was .90.

(6) The Method of Paired Comparisons. The essential feature of the method of paired comparisons is that the indicators are presented to the subject in pairs and he has to decide which of the two is preferable. Words or statements may be used for the purpose. Each word or statement, as the case may be, is paired with every other one.

The method was first developed by G. T. Fechner, but it was first applied to attitude measurement by Thurstone. He also devised a technique for constructing a scale on the basis of percentages of preferred items. Thurstone employed the method

again in studying nationality preferences. Two hundred and thirty-nine undergraduates were asked to underline one nationality of each pair with whom they would rather associate, e.g., English-Swede. The subject was instructed to underline one of the two, even though he found it difficult to decide. There were twenty-one nationalities making 210 such pairs. Proportions, such as 98.8 per cent preferred to associate with Americans rather than Englishmen, were calculated. The rank order of the twenty-one nationalities was ascertained by a simple summation of the proportions. Sigma values were read off from appropriate tables for each proportion. Then the difference between the sigma values of two items in each pair was calculated. The scale separations between the sigma values of the adjacent items were obtained by getting the average of the sigma differences. The next step was to choose the scale value of one of these nationalities as an origin and to calculate the scale values of the other nationalities from this origin. Thurstone chose the American nationality as an origin. When finished, the rank order of the twenty-one nationalities was determined as follows: American, Englishman, Scotchman, Irishman, Frenchman, German, Swede, etc.

Guilford suggested a short-cut to calculating scale values from the percentages that are obtained for each item. The scale value calculated by the Guilford method was found to correlate

almost perfectly with the scale values of the elaborate Thurstone method. The latter method was also tested in a weight experiment under conditions not quite comparable with conditions in an attitude experiment. He was lead to believe that instead of asking one subject to make a large number of judgments it would have been better to use a large number of subjects and have each make only one judgment about the whole series. The Guilford method is a more convenient method to use in attitude measurement, however, the main weakness is that the unit does not remain constant.

Eggan\textsuperscript{62} measured the attitudes toward twenty-five races and nationalities such as Austrian, Belgian, Canadian, Chinese, and the like. His technique was very similar to that of Thurstone, so it will not be elaborated here. The purpose of his study was to see if the scale finally obtained was different under different conditions of instruction. The difference was found to be negligible.

Droba\textsuperscript{63} has valued the method somewhat as follows. It cannot be used to measure individual attitudes, as it is impossible to obtain individual scores, due to the fact that the very calculation of the scale values is dependent upon a combination of markings of a number of individuals. Neither can the standing of a group of individuals on an attitude scale of this type be


determined by a single score. The scatter of the scale values themselves along the scale is the only picture of the attitude of a group.

He believes that for the purpose of comparing the attitudes of two or more groups the method is a useful and objective tool. A correlation can be calculated between the scale values obtained from one group with the scale values obtained from another group. If the correlation is high the two groups agree closely with respect to the object of the attitude. If the correlation is low the agreement is slight and the attitudes of the two groups toward the issue in question are shown to be markedly different.

It is in the latter respect that the writer has elected to employ the technique in comparing the attitudes of junior high students with those of a similar number of adults in the same community with respect to the problem of honesty.

PROCEDURE

Description of the test used in this study. The test employed in the present study was prepared from a list of statements of conduct situations by pairing each statement with every other statement. It was intended that the statements call for judgments of social situations. No attempt was made to weigh statements evenly; however, it was hoped that somewhat of a range in degree of seriousness might be present, and that some of them would portray social or group responsibilities, while others would be purely individual in character. Throughout the discussion of the investigation statements have been referred to by number to
prevent so frequent repetition of the statements, themselves. A more complete discussion of the test will follow the list of statements.

(1) Stealing small articles from a person who does not need them.
(2) Getting even with an enemy.
(3) Misrepresenting facts to protect oneself.
(4) Selling an object for more than it is worth.
(5) Misrepresenting facts to protect a friend.
(6) Misrepresenting an article that is being sold.
(7) Destroying or defacing public property.
(8) Shirking one's work.
(9) Refusing to pay what an object is worth when the owner is forced to sell.
(10) Neglecting to pay debts according to agreements.
(11) Failure to turn all one's property in when the tax assessor calls.
(12) "Hit-and-run-driver."
(13) Personal use of money which belongs to someone else.
(14) Keeping found objects.
(15) Failure to keep a promise.
(16) Failure to correct a false statement which may hurt someone else.
(17) Making a promise one does not expect to keep.
(18) Cheating in an examination.
(19) Cheating in a game of any kind.
(20) Failure to return extra change in case of a merchant's error.
(21) Failure to stop at a stop sign.
(22) Buying alcoholic beverages.
(23) Getting intoxicated.
(24) Smoking.
(25) Defacing property belonging to an individual.

It will be noted that in some cases complete statements were not used. This was done to shorten the test. It was, however, intended that the thought be perfectly clear, and that each statement should express a particular honesty situation. Statement (24) above, perhaps, needs a word of explanation in this respect. In the particular community in which the study was made smoking is considered morally degrading, detrimental to the health of the smoker, and in general "sinful." Until recently teachers' contracts included a statement preventing public school teachers from smoking. While such a statement no longer appears in teacher's contracts, it is tabooed by so many people in the community that teachers are prevented from smoking. Yet at the same time all members of the School Board smoke whenever and wherever they choose. Student-smoking is taboo. Consequently smoking is in many instances done on the sly, and is therefore believed to produce honesty situations.

It was intended that some of the statements be fairly significant, while others were expected to be relatively unimportant, so as to provide a suitable range. As was mentioned before, the test was formed by pairing each of the twenty-five statements with every other statement, thus making 300 pairs including twenty-four repetitions of each statement. The test is too long to include here, so only a sample of the form used is given. The pairs are numbered as they were in the test where they were arranged at random.
67. A. Keeping found objects.
   B. Misrepresenting facts to protect a friend.

105. A. Misrepresenting facts to protect oneself.
   B. Buying alcoholic beverages.

119. A. Smoking.
   B. Buying alcoholic beverages.

142. A. Getting intoxicated.
   B. Making a promise one does not expect to keep.

145. A. Making a promise one does not expect to keep.
   B. "Hit-and-run-driver."

146. A. Personal use of money which belongs to someone else.
   B. Selling an object for more than it is worth.

149. A. Keeping found objects.
   B. Failure to return extra change in case of a merchant's error.

161. A. Neglecting to pay debts according to agreements.
   B. Cheating in a game of any kind.

203. A. Failure to turn all one's property in when the tax assessor calls.
   B. Selling an object for more than it is worth.

206. A. Failure to keep a promise.
   B. Getting even with an enemy.

223. A. Failure to turn all one's property in when the tax assessor calls.
   B. Cheating in a game of any kind.

238. A. Stealing small articles from a person who does not need them.
   B. Refusing to pay what an object is worth when the owner is forced to sell.

249. A. Making a promise one does not expect to keep.
   B. Shirking one's work.

251. A. Defacing property belonging to an individual.
   B. Buying alcoholic beverages.

253. A. Misrepresenting facts to protect a friend.
   B. Cheating in an examination.

265. A. Personal use of money which belongs to someone else.
   B. Destroying or defacing public property.
269. A. Refusing to pay what an object is worth when the owner is forced to sell.
   B. Cheating in an examination.

273. A. Keeping found objects.
   B. Failure to correct a false statement which may hurt someone else.

289. A. Misrepresenting facts to protect oneself.
   B. Misrepresenting facts to protect a friend.

300. A. Cheating in an examination.
   B. Buying alcoholic beverages.

As indicated in the above sample, the first statement appearing in each pair was preceded by the letter "A," and the second by "B." The subject was instructed to read the statements in each pair, and then to draw a line through the letter "A" or "B" preceding the statement in each pair that he believed to be the most serious. Thus, judgment was rendered on but two statements at a time. Further instructions were given that he should mark one statement in each pair regardless of the fact that in some instances he might think them to be approximately equal.

Subjects. The study was made in Sterling, Kansas, a small city of slightly less than 2,000 population. Sterling is located in central Kansas, and is probably a typical trading center for a wheat-farming community comprising some fifteen miles in diameter. There are several well-attended churches, a public library, a denominational college, and a public school system providing education through the first twelve grades. The only manufacturing industry in town is a flour mill. Among the residents are to be found a fairly large group of retired farmers.

The test was given to the students of the Junior High School in their regular social science classes and to the Rotary and
Lions Club each of which gave one of its regular meetings over to checking the test. The time required by the students varied from twenty to forty-five minutes with an average time of approximately twenty-five minutes. Both the Rotary and the Lions Club members required a little longer time, the range being from thirty to sixty minutes with an average of approximately thirty-five minutes. It is not known how long was required by the other sixty-five adults, consisting of both men and women, who were selected by random sampling from the community. Some of them were church members and members of the Parent-Teachers Association, while others were members of neither.

In securing the information from the sixty-five adults, mentioned above, the writer explained to each person individually just what was to be done and why. In a few cases adults preferred not to commit themselves on the test in spite of the fact that everyone taking the test was assured that no reference whatever would be made to the persons taking it, and that no names were desired on the test sheets. In the main, however, everyone was very cooperative, and interested in the outcome of the investigation.

The test was given to seventeen members of the Lions Club, eighteen members of the Rotary Club, to sixty-five other adults—making a total of one hundred adults—, and to 122 students of the Junior High School who were present the day the tests were given. Thus, the study included 222 persons in the community.
RESULTS

After the test was given to the various groups the next step was to tabulate the results. In doing this it was found most convenient to record the number of times statement "A" was considered to be worse than statement "B" in each of the three hundred pairs. The results pertaining to each group were recorded separately for the sake of comparison. The total number of times each of the twenty-five statements was preferred over every other statement was then determined. This information is shown in Tables I, II, III, IV, and V which appear on pages 31, 34, 35, 36, and 37.

These tables show the seriousness with which the separate groups held each of the twenty-five statements which was indicated by the number of times each statement was checked as being worse than the other twenty-four with which it was paired. Table I shows the results of the Rotary Club; Table II, the Lions Club; Table III, the sixty-five other adults selected at random; Table IV, the summarized totals of each of the three preceding adult groups; and Table V, the Junior high school students. As a matter of convenience in reading the following tables, which at first may appear to be somewhat complicated, detailed directions are given for reading Table I. The same directions may, however, be followed in reading each of the other four tables with but one exception, i.e., that in Table IV only the summarized totals from Tables I, II, and III are given.
### TABLE I

A Table showing the total number of times each of the twenty-five statements was preferred over every other statement, the rank, and the percentage of possible preference by the Rotary Club consisting of eighteen members.

| Statement Numbers | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|--------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Total Times Preferred | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rank | 6 | 17 | 16 | 22 | 24 | 12 | 7 | 21 | 18 | 3 | 14 | 1 | 2 | 23 | 10 | 4 | 5 | 13 | 11 | 8 | 20 | 19 | 15 | 25 | 9 |
| Per cent of Preference | 64 | 44 | 44 | 31 | 28 | 52 | 57 | 31 | 43 | 76 | 47 | 87 | 78 | 28 | 54 | 74 | 66 | 30 | 52 | 57 | 33 | 35 | 48 | 11 | 58 |
Directions for reading Table I. The numbers across the top beginning with 1 and continuing to the right to 25 correspond to the numbers assigned to the statements on pages 25 and 26. The numbers on the left side of the table beginning with 1 at the top and proceeding downward to 25 also refer to the statements bearing those numbers on the page mentioned above. The number in the square headed by statement 1 at the top and by statement 2 at the left is the total number of times the Rotary Club checked statement 1 as being worse than statement 2. In short, 14 of the 18 members checked item 1 as being more undesirable or a more reprehensible form of conduct than that represented by item 2. Proceed in this manner to read the numbers in all the squares.

Illustration: Opposite statement 1 at the top and statement 2 to the left is 14; opposite statement 2 at the top and statement 1 to the left is 4; and 4 added to 14 gives a total of 18 which is equal to the number of members of the Rotary Club taking the test. In this way the preference numbers in each square can be checked.

By adding the numbers in the column headed by statement 1 at the top the total preference given to statement 1 by the Rotary Club may be determined. This number is placed at the bottom of the column headed by statement 1 at the top, and is 276.

By multiplying the number of members of the Rotary Club (18) by the number of times each statement occurs in the test (24) the maximum total preference (432) is obtained. To the right of the table opposite statement 1 on the left of the table will be found 156 which is the total number of times the Rotary Club did not prefer statement 1 over each of the other statements, and 156 added to 276 (the total preference given to statement 1) is 432. Thus, the sum of any total preference number at the bottom of the table added to the corresponding total to the right must always give 432, if no error has been made. In this way each total preference number at the bottom of the table was checked.

Attention is again called to the fact that the term, "total preference" refers to the total number of times that particular statement was considered to be worse than the other twenty-four statements with which it was paired, and the total preference for each statement may be found at the bottom of the column headed by the number of that particular statement at the top. Thus, the total preferences for statements 1, 2, 3, etc. may be read across the bottom of the table as 276, 190, 191, etc., consecutively.

Just below the total preference numbers at the bottom of the page will be found the corresponding rank
given to each of the statements, and below this is given the per cent of preference \(^{64}\) given each of the statements.

---

64. Preference here refers to seriousness, since subjects were instructed to check the statement in each pair they considered to be most serious.
TABLE II.

<table>
<thead>
<tr>
<th>Statement Numbers</th>
<th>Total Times Preferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25</td>
<td></td>
</tr>
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<td>145</td>
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</tr>
<tr>
<td>3 14 10 4 4 7 13 6 6 10 15 14 12 12 12 14 10 9 13 6 6 7 1 13</td>
<td>222</td>
</tr>
<tr>
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<td>317</td>
</tr>
<tr>
<td>5 12 7 13 3 15 14 8 5 16 15 14 15 9 12 16 15 14 11 8 5 13 3 9</td>
<td>282</td>
</tr>
<tr>
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</tr>
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<td>7 9 4 4 3 6 4 4 10 8 15 12 8 12 11 11 9 8 5 5 9 1 9</td>
<td>176</td>
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</tr>
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<td>16 7 1 5 0 1 5 6 3 0 1 5 1 2 7 4 6 11 5 5 5 4 5 0 6</td>
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</tr>
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<td>17 6 3 3 1 2 4 6 1 1 1 1 4 1 1 8 2 5 6 6 7 4 4 5 7 0 5</td>
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</tr>
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<td>18 10 6 7 4 3 5 8 3 6 11 12 13 7 12 11 6 7 6 5 9 1 10</td>
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<tr>
<td>19 12 8 8 2 7 9 4 1 0 10 12 11 5 7 12 10 11 8 9 6 7 1 8</td>
<td>188</td>
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</tr>
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</tr>
<tr>
<td>22 15 14 11 9 12 13 9 6 13 13 12 9 13 12 12 12 11 19 11 3 11</td>
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</tr>
<tr>
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<tr>
<td>25 7 7 4 2 8 10 8 2 4 1 1 9 15 10 4 9 11 12 7 9 5 5 6 0 17 1</td>
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</tr>
</tbody>
</table>

Total Preference: 263
Rank: 6 17 16 24 20 1 13 10 23 22 5 7 1 4 1 19 8 3 2 11 12 14 18 21 15 25 9
Percent of Preference: 64 44 46 22 36 54 57 27 28 70 64 79 70 36 61 71 73 54 54 50 39 25 47 9 59
# Table III.

A table showing the total number of times each of the twenty-five statements was preferred over every other statement, the rank, and the percentage of preference by 65 other adults.

<table>
<thead>
<tr>
<th>Statement Numbers</th>
<th>Total Times Preferred</th>
</tr>
</thead>
<tbody>
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<td>1</td>
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</tr>
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<td>52 48 46 22 27 44 41 32 58 44 59 57 36 30 57 42 16 46 21 38 36 13 40</td>
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</tr>
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<td>44 38 29 19 16 39 37 18 21 52 52 44 19 35 55 42 32 30 17 28 36 7 44</td>
</tr>
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<td>15 20 16 6 12 14 12 10 11 18 13 23 7 10 26 18 13 13 16 5 11 21 5 10</td>
</tr>
<tr>
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<td>28 27 15 9 15 19 22 8 11 29 21 42 8 23 40 28 18 22 21 9 19 25 5 16</td>
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<tr>
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<td>41 28 29 17 21 20 35 5 15 43 30 55 42 11 46 54 29 38 29 17 36 7 33</td>
</tr>
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</tr>
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<td>18</td>
<td>47 40 36 19 30 31 13 23 54 33 52 47 23 36 49 40 27 37 20 47 43 12 40</td>
</tr>
<tr>
<td>19</td>
<td>47 37 26 16 24 40 41 20 19 45 35 52 43 31 27 45 46 38 36 25 23 42 11 40</td>
</tr>
<tr>
<td>20</td>
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</tr>
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<tr>
<td>25</td>
<td>42 38 22 9 26 31 28 18 25 43 21 55 47 14 32 44 42 25 25 38 13 26 38 8</td>
</tr>
</tbody>
</table>

| Rank             | 6 8 14 24 21 13 9 23 19 4 47 17 1 3 20 12 2 5 16 15 10 22 18 7 25 11 |
| Per cent of Preference | 64 58 50 26 32 35 37 27 36 68 48 78 79 69 94 53 73 68 48 55 30 41 60 15 55 |
TABLE IV.
A TABLE SHOWING THE TOTAL NUMBER OF TIMES EACH OF THE TWENTY-FIVE STATEMENTS WAS PREFERRED OVER EVERY OTHER STATEMENT, THE RANK, AND THE PERCENTAGE OF PREFERENCE BY THE COMBINED ADULT GROUPS CONSISTING OF 100 PERSONS.

<table>
<thead>
<tr>
<th>Statement Numbers</th>
<th>Total Times Preferred</th>
</tr>
</thead>
<tbody>
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<td>1</td>
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<td>1060</td>
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</tr>
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</table>

Total Preference:

Rank: 6 12 17 24 21 13 7 23 19 4 14 1 3 20 10 2 5 15 16 11 22 18 8 25 9
Per cent of Preference: 64 53 48 26 32 53 57 28 36 70 52 32 71 33 54 73 68 50 55 55 32 39 56 13 56
### TABLE V.


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<td>1615</td>
</tr>
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<td>1929</td>
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<table>
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<table>
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<td>14 21 18 19 20 15 3 22 13 5 9 1 4 24 16 7 6 11 17 10 25 12 2 23 8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Per cent of Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>49 39 45 45 42 49 62 39 49 59 55 74 61 34 46 57 58 51 46 51 30 50 66 38 55</td>
</tr>
</tbody>
</table>
Explaination and Interpretation of Tables I to V. The "total preference" numbers at the bottom of the tables were derived by adding the corresponding figures in the column immediately above. These numbers represent the total number of times each of the twenty-five statements was preferred over all the other statements by the members in the groups indicated in the tables. For example, in Table I there were eighteen men in the Rotary Club who took the test, and since each statement was repeated twenty-four times it was possible for any statement to have been preferred 432 times, but statement "1" in column "1" was checked only 276 times. The corresponding number at the right opposite statement "1" on the left is 156. This is the total number of times statement "1" was not checked. The numbers on the right were merely placed there for the purpose of checking the accuracy of the total preference numbers at the bottom. This was done by adding each total preference number to the number on the right to which it corresponded. If it was correct the sum was always 432 in Table I, and in the other tables the number of subjects taking the test multiplied by the number of times each statement was repeated in the pairs. This proved to be a very helpful method in checking the data for errors, since any errors in the preceding tabulations would show up at this point.

The total preference numbers in each of the tables above provide an index to the seriousness with which each group held each of the statements. The total preference numbers furnish the foundation for the remainder of the thesis. It was from them that the rank of the statements was determined. Since the state-
ment that was checked the greatest number of times also received the greatest total preference number, it was ranked as first. In all of the tables it will be found that statement "12," Hit-and-run driver, received this ranking, while statement "24," Smoking, was ranked as twenty-fifth by each of the adult groups, and twenty-third by the junior high school students.

The per cent of preference which is shown at the foot of each of the tables was determined in the following way. Since it was possible for the members of the Rotary Club in Table I to have preferred any statement 432 times, this number was considered as 100 per cent. Referring to statement "1" which was preferred 276 times, it may be seen that 276 is 64 per cent of 432. The per cent of preference just below the rank shows more clearly the degree of difference in the ratings the statements actually received.

A summary of the per cent of preference is given in Table VI, page 40, showing a comparison of the per cents of preference given each of the statements by the three adult groups separately, by the combined adult groups and by the junior high students.
TABLE VI.


<table>
<thead>
<tr>
<th>Statement Numbers</th>
<th>The 18 Rotary Club Members</th>
<th>The 17 Lions Club Members</th>
<th>The 65 Other Adults</th>
<th>The 100 Adults in Combined Ad. Groups</th>
<th>The 122 Junior High Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>63.89</td>
<td>64.46</td>
<td>63.91</td>
<td>64.00</td>
<td>49.21</td>
</tr>
<tr>
<td>2.</td>
<td>45.96</td>
<td>44.36</td>
<td>57.76</td>
<td>53.04</td>
<td>35.87</td>
</tr>
<tr>
<td>3.</td>
<td>44.21</td>
<td>45.59</td>
<td>49.88</td>
<td>48.08</td>
<td>45.32</td>
</tr>
<tr>
<td>4.</td>
<td>30.56</td>
<td>22.30</td>
<td>25.90</td>
<td>26.12</td>
<td>44.84</td>
</tr>
<tr>
<td>5.</td>
<td>28.24</td>
<td>35.78</td>
<td>32.05</td>
<td>32.00</td>
<td>41.94</td>
</tr>
<tr>
<td>6.</td>
<td>51.95</td>
<td>53.68</td>
<td>52.89</td>
<td>52.87</td>
<td>49.01</td>
</tr>
<tr>
<td>7.</td>
<td>57.41</td>
<td>56.86</td>
<td>56.92</td>
<td>57.00</td>
<td>61.92</td>
</tr>
<tr>
<td>8.</td>
<td>50.78</td>
<td>27.21</td>
<td>27.31</td>
<td>27.92</td>
<td>36.83</td>
</tr>
<tr>
<td>9.</td>
<td>43.08</td>
<td>23.26</td>
<td>35.71</td>
<td>35.75</td>
<td>49.35</td>
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<tr>
<td>10.</td>
<td>75.93</td>
<td>69.65</td>
<td>68.33</td>
<td>69.96</td>
<td>59.12</td>
</tr>
<tr>
<td>11.</td>
<td>49.31</td>
<td>63.97</td>
<td>47.74</td>
<td>52.08</td>
<td>54.68</td>
</tr>
<tr>
<td>12.</td>
<td>66.57</td>
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<td>79.17</td>
<td>82.21</td>
<td>73.70</td>
</tr>
<tr>
<td>13.</td>
<td>77.78</td>
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<td>68.65</td>
<td>70.58</td>
<td>61.03</td>
</tr>
<tr>
<td>14.</td>
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<td>36.03</td>
<td>33.78</td>
<td>33.17</td>
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</tr>
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<td>15.</td>
<td>53.94</td>
<td>61.25</td>
<td>54.74</td>
<td>55.75</td>
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<tr>
<td>16.</td>
<td>74.07</td>
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<td>73.04</td>
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<tr>
<td>17.</td>
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<td>67.95</td>
<td>68.33</td>
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</tr>
<tr>
<td>18.</td>
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<td>48.15</td>
<td>49.83</td>
<td>50.89</td>
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<td>19.</td>
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<td>53.92</td>
<td>48.15</td>
<td>49.82</td>
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<td>50.49</td>
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<td>54.71</td>
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<td>22.</td>
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<td>41.15</td>
<td>38.96</td>
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<td>23.</td>
<td>48.10</td>
<td>47.45</td>
<td>60.32</td>
<td>55.96</td>
<td>66.22</td>
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<tr>
<td>24.</td>
<td>11.34</td>
<td>8.09</td>
<td>14.62</td>
<td>12.92</td>
<td>37.70</td>
</tr>
<tr>
<td>25.</td>
<td>57.15</td>
<td>58.88</td>
<td>54.87</td>
<td>55.83</td>
<td>54.92</td>
</tr>
</tbody>
</table>

Directions for Reading Table VI. The numbers in the column on the left correspond to the statements opposite these numbers on pages 25 and 26. The numbers in each of the other columns opposite the statement numbers are the respective per cents of preference which were given by the groups indicated at the top.
A table showing a comparison of the ranking given each of the 25 statements by the various groups consisting of the 18 members of the Rotary Club, the 17 members of the Lions Club, the 65 other adults, the 100 adults in the combined adult group which is a combination of the three preceding groups, and the 122 junior high students.

<table>
<thead>
<tr>
<th>Statement Numbers</th>
<th>The 18 Rotary Club Members</th>
<th>The 17 Lions Club Members</th>
<th>The 65 Other Adults</th>
<th>The 100 Adults in Combined Ad. Groups</th>
<th>The 122 Junior High Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
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</tr>
<tr>
<td>2.</td>
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<td>17</td>
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<td>12</td>
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<tr>
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<tr>
<td>7.</td>
<td>7</td>
<td>10</td>
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<td>8.</td>
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<td>23</td>
<td>23</td>
<td>23</td>
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</tr>
<tr>
<td>9.</td>
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<td>22</td>
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<td>19</td>
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<td>4</td>
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</tr>
<tr>
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</tr>
<tr>
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</tr>
<tr>
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<td>3</td>
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</tr>
<tr>
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</tr>
<tr>
<td>15.</td>
<td>10</td>
<td>8</td>
<td>12</td>
<td>10</td>
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</tr>
<tr>
<td>16.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>17.</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>6</td>
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<tr>
<td>18.</td>
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<td>11</td>
<td>16</td>
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</tr>
<tr>
<td>19.</td>
<td>11</td>
<td>12</td>
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</tr>
<tr>
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</tr>
<tr>
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<tr>
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</tr>
<tr>
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<td>15</td>
<td>7</td>
<td>8</td>
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<tr>
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<td>25</td>
<td>25</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>25.</td>
<td>9</td>
<td>9</td>
<td>11</td>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

Directions for Reading Table VII. The numbers in the column headed, "Statement Numbers," correspond to the statements opposite these numbers on pages 25 and 26. The numbers under each of the other columns refer to the rank given each of the twenty-five statements by the groups indicated. For example, Statement 1 is ranked sixth by the first four groups, and fourteenth by the Junior High Students.
While Table VI provides an index to the degree of seriousness with which each of the statements have been held by the groups, it does not show a clear comparison of the ranking given by these groups. Table VII, which immediately follows Table VI, has been prepared to show the relative ranking given each statement by the same groups. It will be recalled that the statement which was checked the greatest number of times was ranked as first in seriousness, since the subjects were instructed to check the statement in each pair which they considered to be worse. Tables VI and VII both show comparisons of the adult groups with one another, and with the junior high students; but it is somewhat difficult to visualize the degree of difference between the ratings of the various statements when given merely in per cents of preference or in ranking order, so Figures I to V have been designed to show more graphically on a scale the degree of seriousness with which each statement was considered. Figure I refers to the Rotary Club, Figure II to the Lions Club, Figure III to the sixty-five adults selected at random, Figure IV to the combined adult groups, and Figure V to the junior high students. These figures may be found on the pages that follow.
12. "Hit-and-run-driver."
13. Personal use of money which belongs to someone else.
10. Neglecting to pay debts according to agreements.
16. Failure to correct a false statement which may hurt someone else.
17. Making a promise one does not expect to keep.
1. Stealing small articles from a person who does not need them.
7. Destroying or defacing public property.
20. Failure to return extra change in case of a merchant's error.
25. Defacing property belonging to an individual.
15. Failure to keep a promise.
19. Cheating in a game of any kind.
6. Misrepresenting an article that is being sold.
18. Cheating in an examination.
11. Failure to turn all one's property in when the tax assessor calls.
23. Getting intoxicated.
3. Misrepresenting facts to protect oneself.
2. Getting even with an enemy.
9. Refusing to pay what an object is worth when the owner is forced to sell.
22. Buying alcoholic beverages.
21. Failure to stop at a stop sign.
6. Shirking one's work.
4. Selling an object for more than it is worth.
14. Keeping found objects.
5. Misrepresenting facts to protect a friend.
24. Smoking.

FIGURE I. A Scale showing the percentage of preference by the Rotary Club of the 25 statements. (Preference refers to degree of seriousness of statements, e.g., statement 12 is regarded worse than all the others, and is found at the top of the list with percentage of preference of approximately 87.)
12. "Hit-and-run-driver."
17. Making a promise one does not expect to keep.
16. Failure to correct a false statement which may hurt someone else.
13. Personal use of money which belongs to someone else.
10. Neglecting to pay debts according to agreements.
  1. Stealing small articles from a person who does not need them.
  11. Failure to turn all one's property in when the tax assessor calls.
  15. Failure to keep a promise.
  25. Defacing property belonging to an individual.
  7. Destroying or defacing public property.
  19. Cheating in a game of any kind.
  6. Misrepresenting an article that is being sold.
  20. Failure to return extra change in case of a merchant's error.
  23. Getting intoxicated.
  5. Misrepresenting facts to protect oneself.
  2. Getting even with an enemy.
  21. Failure to stop at a stop sign.
  14. Keeping found objects.
  5. Misrepresenting facts to protect a friend.
  22. Buying alcoholic beverages.
  9. Refusing to pay what an object is worth when the owner is forced to sell.
  18. Shirking one's work.
  4. Selling an object for more than it is worth.
  24. Smoking.

FIGURE II. A Scale showing the percentage of preference by the Lions Club of the 25 statements. (Preference refers to degree of seriousness of statements, e.g., statement 12 is regarded worse than all the others, and is found at the top of the scale with a percentage of preference of approximately 79.)
1. Stealing small articles from a person who does not need them.
2. Getting intoxicated.
3. Misrepresenting facts to protect oneself.
4. Selling an object for more than it is worth.
5. Misrepresenting facts to protect a friend.
6. Misrepresenting an article that is being sold.
7. Destroying or defacing public property.
8. Getting even with an enemy.
9. Refusing to pay what an object is worth when the owner is forced to sell.
10. Neglecting to pay debts according to agreements.
11. Failure to return extra change in case of a merchant's error.
12. "Hit-and-run-driver."
13. Personal use of money which belongs to someone else.
14. Keeping found objects.
15. Failure to keep a promise.
16. Failure to correct a false statement which may hurt someone else.
17. Making a promise one does not expect to keep.
18. Cheating in an examination.
19. Cheating in a game of any kind.
20. Failure to stop at a stop sign.
21. Shirking one's work.
22. Buying alcoholic beverages.
23. Getting intoxicated.
24. Neglecting to pay according to agreements.
25. Defacing property belonging to an individual.
26. Misrepresenting an article that is being sold.
27. Misrepresenting facts to protect oneself.
28. Selling an object for more than it is worth.
29. Smoking.
30. Keeping found objects.
31. Misrepresenting facts to protect a friend.
32. Misrepresenting an article that is being sold.
33. Destroying or defacing public property.
34. Getting even with an enemy.
35. Refusing to pay what an object is worth when the owner is forced to sell.
36. Neglecting to pay debts according to agreements.
37. Personal use of money which belongs to someone else.
38. Making a promise one does not expect to keep.
40. Cheating in a game of any kind.
41. Failure to return extra change in case of a merchant's error.
42. "Hit-and-run-driver."
43. Personal use of money which belongs to someone else.
44. Neglecting to pay debts according to agreements.
45. Making a promise one does not expect to keep.

FIGURE III. A Scale showing the percentage of preference by the sixty-five other adults of the 25 statements. (Preference refers to degree of seriousness of statements, e.g., statement 12 is regarded worse than all the others, and is found at the top of the scale with a percentage of preference of approximately 79.)
12. "Hit-and-run-driver."
16. Failure to correct a false statement which may hurt someone else.
13. Personal use of money which belongs to someone else.
10. Neglecting to pay debts according to agreements.
17. Making a promise one does not expect to keep.
1. Stealing small articles from a person who does not need them.
7. Destroying or defacing public property.
23. Getting intoxicated.
25. Defacing property belonging to an individual.
15. Failure to keep a promise.
20. Failure to return extra change in case of a merchant's error.
2. Getting even with an enemy.
6. Misrepresenting an article that is being sold.
11. Failure to turn all one's property in when the tax assessor calls.
18. Cheating in an examination.
19. Cheating in a game of any kind.
3. Misrepresenting facts to protect oneself.
22. Buying alcoholic beverages.
9. Refusing to pay what an object is worth when the owner is forced to sell.
14. Keeping found objects.
5. Misrepresenting facts to protect a friend.
21. Failure to stop at a stop sign.
8. Shirking one's work.
4. Selling an object for more than it is worth.
24. Smoking.

FIGURE IV. A Scale showing the percentage of preference by the Combined Adult Groups of the 25 statements. (Preference refers to degree of seriousness of statements, e.g., statement 12 is regarded worse than all the others, and is found at the top of the scale with a percentage of preference of approximately 82.)
12. "Hit-and-run-driver."
23. Getting intoxicated.
7. Destroying or defacing public property.
13. Personal use of money which belongs to someone else.
10. Neglecting to pay debts according to agreements.
17. Making a promise one does not expect to keep.
16. Failure to correct a false statement which may hurt someone else.
25. Defacing property belonging to an individual.
11. Failure to turn all one's property in when the tax assessor calls.
20. Failure to return extra change in case of a merchant's error.
18. Cheating in an examination.
22. Buying alcoholic beverages.
9. Refusing to pay what an object is worth when the owner is forced to sell.
1. Stealing small articles from a person who does not need them.
6. Misrepresenting an article that is being sold.
15. Failure to keep a promise.
19. Cheating in a game of any kind.
3. Misrepresenting facts to protect oneself.
4. Selling an object for more than it is worth.
5. Misrepresenting facts to protect a friend.
2. Getting even with an enemy.
8. Shirking one's work.
24. Smoking.
14. Keeping found objects.
21. Failure to stop at a stop sign.

FIGURE V. A Scale showing the percentage of preference by the junior high students of the 25 statements. (Preference refers to degree of seriousness of statements, e.g., statement 12 is regarded worse than all the others, and is found at the top of the scale with a percentage of preference of approximately 74.)
In the foregoing tables and figures very few, if any, differences are evident between the various adult groups, although there appear to be a greater difference between the combined adult groups and the junior high students. Figure VI, which follows, shows a comparison of the two latter groups in terms of per cents of preference on the scale used in the preceding figures. Figure VI is followed by Figure VII which sets forth the same information in the form of a graph. Figures VI and VII not only point out the differences, but show the extent of difference of opinion between the students and the adults.

In Figure VII the per cents of preference were arranged horizontally in ascending order, while the statements were arranged vertically in ascending order of preference to the right by the combined adult groups. The graph of the combined adult groups is shown by the black line, and that of the junior high students by a red line.
FIGURE VI. A Scale showing a comparison of the percentage of preference between the 100 Combined Adult scores and those of the 122 Junior High Students. (Preference refers to degree of seriousness of statements, e.g., statement 12 is regarded worse than all the others, and is found at the top of the scale.) The numbers in the columns refer to the respective statements in Figures IV and V.
Statements Arranged in Order of Preference by Combined Adult Groups.

FIGURE VII. A graph showing a comparison between the Combined Adult Groups and the Junior High Students in per cents of preference. (Preference refers to degree of seriousness, e.g., statement 12 is considered the most serious by both groups.) Black line is graph of Combined Adult Groups. Red line of Junior High Students. (See pages 25 and 26 for statements.)
Figures VI and VII show the difference between the opinions of the adults and the students. The significance of these differences is better illustrated in Table VIII which is found on the following page. Comparisons have been made here in terms of coefficients of correlation which illustrate mathematical evaluations of the extent of similarity and difference in the scores given the statements by the groups studied. These scores may be found at the foot of Tables I to V, pages 31, 34, 35, 36, and 37 listed as total preference numbers. These numbers correspond to the total number of times each of the statements were selected as being the most serious.
TABLE VIII


<table>
<thead>
<tr>
<th>Group Comparisons</th>
<th>Coefficients of Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adult Group Comparisons</strong></td>
<td></td>
</tr>
<tr>
<td>Lions Club and Rotary Club</td>
<td>.885</td>
</tr>
<tr>
<td>Lions Club and The Sixty-Five Adults</td>
<td>.879</td>
</tr>
<tr>
<td>Lions Club and Combined Adult Groups</td>
<td>.950</td>
</tr>
<tr>
<td>Rotary Club and The Sixty-Five Adults</td>
<td>.968</td>
</tr>
<tr>
<td>Rotary Club and Combined Adult Groups</td>
<td>.963</td>
</tr>
<tr>
<td>The Sixty-Five Adults and Combined Adult Groups</td>
<td>.978</td>
</tr>
<tr>
<td><strong>Average of Adult Group Comparisons</strong></td>
<td>.937</td>
</tr>
<tr>
<td><strong>Comparison of Adult Groups with Junior High Students</strong></td>
<td></td>
</tr>
<tr>
<td>Lions Club and Junior High Students</td>
<td>.717</td>
</tr>
<tr>
<td>Rotary Club and Junior High Students</td>
<td>.629</td>
</tr>
<tr>
<td>The Sixty-Five Adults and Junior High Students</td>
<td>.668</td>
</tr>
<tr>
<td>Combined Adult Groups and Junior High Students</td>
<td>.757</td>
</tr>
<tr>
<td><strong>Average for Adult Groups when Compared with Junior High Students</strong></td>
<td>.693</td>
</tr>
<tr>
<td>Difference Between the Average of the Various Adult Group Comparisons and the Average for the Adult Groups when Compared with the Junior High Students</td>
<td>.244</td>
</tr>
<tr>
<td>Difference Between the Coefficient of Correlation of the Comparison of Combined Adult Groups with Junior High Students and the Average of the Coefficients of Correlation for the Comparisons of the Various Adult Groups with One Another</td>
<td>.180</td>
</tr>
<tr>
<td><strong>Average Difference</strong></td>
<td>.212</td>
</tr>
</tbody>
</table>
In Table VIII a positive correlation was found in each comparison, and the coefficients all run high, the lowest being .629 between the Rotary Club and the Junior High Students, while the highest, .978, was between the sixty-five adults selected at random and the combined adult group. The latter comparison was expected to yield a high coefficient, however, since these sixty-five adults also made up sixty-five per cent of the combined adult group. The highest coefficient of correlation was .968 which was derived from the comparison of the Rotary Club with the sixty-five adults selected at random. The lowest coefficient of correlation found among the comparisons of the adult groups was .879. The average of the coefficients derived from comparisons of the adult groups was .937.

The highest coefficient of correlation found when the adult groups were compared with the students was .757. The lowest was .629, and the average was .693. Since the average for the adult comparisons with one another was .937, this made an average difference of .244 between coefficients of correlation derived when the adult groups were compared with one another and when they were compared with the students.

When the scores of the combined adult groups were compared with the scores of the students a coefficient of correlation of .757 was obtained. When this coefficient is subtracted from the average of the coefficients of correlation found in the comparisons of the adult groups with one another there is a difference of .180. Now, by adding the two differences together and dividing by two the average of the differences in each case is
found to be .212. Thus the average difference between the adults and the students might be said to be something more than twenty per cent, while the greatest difference between the coefficients of correlation when the adult groups were compared with one another was .099, or approximately ten per cent. Hence, the difference between the opinions of the students and the adults might be estimated to be more than twice as great as the greatest difference that existed between the opinions of the various adult groups.

**SUMMARY**

A scale has been constructed by the method of paired comparison to determine the relative degree of seriousness with which a group of junior high school students and adult citizens hold the twenty-five statements of socially undesirable conduct. The study not only gives the rank order of the statements as they represent the opinions of each group, but it also gives the scale distance between the various statements. That is, it is possible to determine by inspecting the scales which of any two items is considered the more undesirable by the groups included in the study, and also how much more undesirable it is.

The attitudes of both students and adults were determined by means of the same test in which the subjects were asked to check the statement in each pair which they thought to be most serious. Every statement of conduct was paired with every one of the other twenty-four statements, making 300 comparisons in all. The attitudes of the adult and junior high school groups
have been compared. These comparisons were made in terms of (1) the per cents of preference (Figures I to VII, pp. 43, 44, 45, 46, 49, 50), (2) the ranking given each statement (Tables VI and VII, pp. 49, 50), and (3) in coefficients of correlation between the adult groups and the junior high students calculated from the original scores of the various groups (Table VIII, p. 52).

While the attitudes of the various adult groups differ, one group from another, as is shown in their ratings of the statements used in the test, the degree of difference here is slightly less than half as great as the difference that exists between the adults and the students.

The scores of the groups studied bear a close similarity as illustrated in the high coefficients of correlation derived from comparisons mentioned in Table VII, page 52. Upon the basis of this similarity of opinions between adults and students one is led to believe that the younger generation is not "going to the dogs" very much more rapidly than the one preceding it. To what extent students' opinions were the result of indoctrination by adults in the community is not revealed in this investigation.
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