SOCIAL BEHAVIOR DIFFERENCES BETWEEN ACCEPTABLE
AND NON-ACCEPTABLE SECOND-GRADE CHILDREN

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AND NON-ACCEPTABLE SECOND-GRADE CHILDREN

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# TABLE OF CONTENTS

LIST OF TABLES ......................................................... iv

Chapter

I. INTRODUCTION TO THE STUDY ........................................ 1
   Statement of the Problem
   Need for the Study
   Related Studies
   Definition of Terms
   Subjects Used
   Limitations of the Study

II. SOURCES OF DATA .................................................. 16
   The Sociometric Technique
   The Time-Sampling Technique

III. THE SOCIAL BEHAVIOR OF THE ACCEPTABLE GROUP
     COMPARED WITH THE SOCIAL BEHAVIOR OF THE
     NON-ACCEPTABLE GROUP ......................................... 29

IV. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS .................. 37
   Summary
   Conclusions
   Recommendations

BIBLIOGRAPHY .......................................................... 40
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Frequencies, Means, Standard Deviations, Differences Between the Means, Standard Errors of the Differences Between the Means, t Scores, and Levels of Confidence.</td>
<td>39</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION TO THE STUDY

Statement of the Problem

The major problem of this study is an investigation, by means of a time-sampling technique, the relationship between social behavior and social acceptance as determined by a sociometric technique.

Need for the Study

Although he many not be aware of it, there are few, if any, things of more concern to an individual than is his peer status. It is certainly true that one cannot be a happy and adequate person if he is rejected by many of those with whom he wants to, or must, associate. He may be happy even though none of his associates considers him handsome, or strong, or intelligent, or skilled. He may be happy even though considered inferior in many ways by the members of his group, but he will not be happy if he is considered inferior "as a person;" that is, if he is regarded as "generally inferior" and is rejected by the group as an unworthy associate.  

It would seem that a knowledge of those kinds of behavior characteristic of those individuals who are well-accepted in their groups would be of interest to everyone, especially to parents, psychologists, teachers, and others directly concerned with teaching, guiding, and leading children. Presumably, a knowledge of those kinds of behavior which is found to differentiate between those children who are well-accepted and those less well-accepted would be of value in helping unpopular children toward a higher degree of acceptance in their groups and toward more happiness and personal adequacy.

Many studies of social acceptance may be found in psychological literature. A few of these investigations, especially those made during recent years, are similar to this one in regard to techniques used. This study, however, may be superior in one respect to many made previously; namely, in that no effort was made to find specific kinds, or types, of behavior that would conform to certain behavior categories. All of the subjects' behavior which the investigator thought could have any social significance was recorded.

Some investigators conducting studies similar to this one have used an arbitrary list of categories which they made up before beginning their investigation. Such a procedure is likely to produce erroneous findings. Significant behavior may be overlooked if a list of categories is made up beforehand because the investigator would have a tendency to look
only for those kinds of behavior which would conform to, or could possibly be made to conform to, his list of behavior categories.

The list of behavior categories used in this study was considered by the investigator to be a tentative one, and it was revised from a list of behavior categories which was derived directly from the observed behavior of the subjects used in a previous study. ²

Related Studies

Hsia, in 1928, used a sociometric technique in a study concerning the sociability of sixth, seventh and eighth grades. His study represents an effort to ascertain the relationship between sociability as judged by teacher and fellow pupils, on the one hand, and a number of factors, on the other. Each pupil was asked to name four classmates whom he would like to invite to a party. He was also asked to vote on whom he thought were the best "mixers" in his class.

Hsia concluded that sociability is positively related to mental age, intelligence quotient, reading ability and socio-economic status. Of the factors included in his study, reading

ability is the one which he found to have the highest positive correlation with his composite sociability score.\(^3\)

Using a group of sixty-two pairs of boys comprising thirty-five different individuals, Furfey, in 1927, found that boys within the same school or neighborhood group tend to choose chums of the same age, size, intelligence, and maturity. He obtained rather low positive correlations (.22-.39) between the boys' choosing and each of the above-named factors.\(^4\)

In the fall of 1938, Bonney began a study of various factors related to social success of first-grade children in three schools in Denton, Texas. He continued to study these children when they were in the second grade, and the greater part of the data reported in his study were obtained while these children were in the second grade. Social status was based on pupil choices in five to eight choosing situations conducted throughout the school year. Teacher judgments of the personality traits of these children revealed the following:

Most of the generally recognized desirable personality traits were found by teachers to be much more common among the popular than among the unpopular children. However, a number of very undesirable personal traits were listed by teachers as being characteristic of popular children, and, at the same time, some very

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desirable traits were accredited to unpopular pupils. This shows that social acceptance is not due to certain traits but to the total impression the individual makes on others. 5

In a study of factors influencing the friendship of thirty-three preschool children, seventeen boys and sixteen girls, Challman noted the names of the children who were found in the same group at the free play hours in a nursery. This investigator considered a group to exist "when two or more children were in close spatial relationship more or less isolated from other children or when they were mutually engaged in the same activity."6 The number of times each child was with every other child was used as the criterion for strength of friendship. Strength of friendship was compared with attractiveness of personality to adults in total scores as obtained by a rating scale and with other factors. Attractiveness of personality was found to have no influence on friendships between boys and girls and was found to have no influence on either boys' or girls' friendships.

Challman notes some sources of error in his method. He believed some error to result from counting children as in the same group even though they were paying little attention to each other. Also, there is a source of error in the fact


that "when children are engaged in the same activity, it is impossible to know to what extent they are attracted by the specific play material and to what extent they are attracted by the children in the group."\(^7\)

Measures of social acceptability at different ages through the adolescent period were compared by Kullen and Lee with judgments by the associates of the seven hundred adolescent subjects as to their personal characteristics. These investigators found that most of the personality traits included in their study showed substantial relationships with social acceptability. The most acceptable subjects were judged more frequently to be popular, cheerful and happy, enthusiastic, friendly, to enjoy jokes, to initiate games and activities.\(^8\)

Smith, using a fourth-grade class of twenty-seven children as subjects, asked each child to write the name of the child whom he liked best and to make second and third choices. Each child also named those whom he disliked most. In order to find out why the children were liked and disliked, she asked a prepared list of questions in an interview with each child. Her findings are as follows:

**Fourth-grade children do not like a screaming voice or harsh words. Children who take turns at selecting games**

\(^7\)Ibid., pp. 146-158.

\(^8\)
are liked. The rules of the game should be followed. Fourth-grade children dislike a person who is a bully and one who insists upon having his own way.

Fourth-grade children like classmates who are kind, both in school and out of school. Children who share their toys and books are well liked. Children who include the entire class in their personal invitations are liked. 9

Using sociometric procedures, Lyle and Cooper selected approximately the most popular and the least popular eighths of 418 children in grades five through eight. Critical ratios of the differences in terms of probable errors were computed to test the statistical significance of each of thirty-three factors in relation to popularity. Only six of the thirty-three factors were considered to differentiate between the popular and the unpopular children to a significant extent. The popular children proved definitely to be more extroverted, to have a higher sense of personal worth and a stronger feeling of belonging, to express more acceptable social standards, to possess superior school relations, and to be more attractive in facial appearance. Of these six factors, the most striking difference occurred for attractiveness in facial appearance. Attractiveness of facial appearance was judged by the method of paired comparisons by teachers, the school nurse, and six persons (three adults and three

children) who were strangers to the experimental subjects. All of these judges found differences which are in favor of the popular children and which yield large critical ratios.\textsuperscript{10}

Eight classes in a New York public school with a membership 75 per cent Negro were given a sociometric test twice in an investigation conducted by Crisswell. The second test was administered six weeks after the first one was administered. A seating criterion was used in both instances. Reason for change in choice given by some of the choosers was bad class conduct developed by the person first chosen.\textsuperscript{11}

Ten accepted, ten rejected, and ten neither accepted nor rejected children were selected for study from a group of 310 sixth-grade children in an investigation conducted by Ames. The criterion used in selecting these children was the scores they made on Smalzried's Social Acceptance Scale. The three problems investigated by Ames were: (1) Are children aware of how well they are accepted by their classmates? (2) Is there a relationship between the child's opinion of his social acceptance and his feelings of conflict? (3) Do children who feel accepted display typical behavior patterns, and do children who feel rejected display typical behavior patterns?

\textsuperscript{10}Lyle L. Young and Cooper, Dan H., "Some Factors Associated with Popularity," \textit{The Journal of Educational Psychology}, XXXV (1944), 513-515.

Using a time-sampling technique, each child was observed a total of two hours during five-minute observation periods. The Brewer Observation blank was used in recording the behavior.

Little evidence that children are aware of how well they are liked by their classmates was found. Only meager evidence was found for the existence of behavior patterns which typify the child who feels rejected or the child who feels accepted. The relationship between a child's opinion of his social acceptance and his feelings of unhappiness or conflict does not appear to be a strong one.12

In a study of personality traits and social acceptability, Bonney used two methods of investigation, namely, trait ratings on the part of both teachers and pupils and pupil choices of friends. Fourth-grade students in three schools in Denton, Texas, were the subjects used.

From the data of this study Bonney concluded that a child is well accepted in a group "much more because of what he is and what he does which wins the admiration of others than because of what he refrains from doing, or, in other words,—strong, positive personality traits are more important than negative virtues."13


13Merl E. Bonney, "Personality Traits of Socially Successful and Socially Unsuccessful Children," *Journal of Educational Psychology*, XXXIV (1943), 472.
Social acceptability is a consequence of "a good general development and preparation for all the problems of life." It is possible that friendly attitudes are more important than strong, positive traits, although strong, positive traits are a very important asset.

Hardy employed two methods in evaluating social recognition—reports and ratings made by the teachers and the expressed "companion preferences" of the pupils recorded annually during interviews with a psychologist in a study conducted over a period of four years. Her subjects were 15 white boys and 19 white girls. At the time the study was initiated, the average age of these subjects was nine years and three months. She studied social recognition as it is related to a number of factors, including intelligence and school accomplishment, behavior traits and school attitudes, physical achievement, health ratings, physical appearance, and home situation. The best-liked children were found to "rank above the average of the group in every aspect of development examined." 15

Jennings used 400 girls in The New York State Training School for Girls in an investigation of personality differences in relation to peer status. No restrictions were placed on the

14 Ibid.

number of positive and negative choices made by each individual on the basis of four criteria. The subjects were divided into three groups: (1) under-chosen are those placing one standard deviation below the mean of the test population in choice-status; (2) over-chosen are those placing one standard deviation above the mean; and (3) average-chosen are those placing at or near the mean. The behavior of each girl was analyzed on the basis of "complaints" and "commendations" made by her respective housemother.

The under-chosen subjects in Jennings' study were found to show "quarrelsome and irritable behavior" five times as often as average subjects, which average subjects show this behavior three times as often as over-chosen subjects. According to the ratings made by the housemothers, the under-chosen girls showed a greater incidence of the following behavior than did the average-chosen, while the average-chosen showed a greater incidence of the same behavior than did the over-chosen. (1) "nagging, whining behavior," (2) "nervous behavior," (3) "aggressive and dominant" behavior, (4) behavior interpreted as "pernicious in effect on morale of group" (5) behavior "resulting in avoidance by others of the individual," (6) "praise-seeking behavior," (7) "behavior requiring no special attention from housemother," (8) behavior "making most of vocational and avocational opportunities," and (9) "behavior showing planning and organization." Those subjects in the over-chosen group were found to exhibit the
following types of behavior more often than those subjects in the other groups: (1) "rebellious" behavior, (2) "initiatory behavior in making innovations without permission," (3) "re-taliatory behavior," (4) "reticent behavior," and (5) "get-ting-even" type of behavior.

In conferences with psychologists, subjects in the over-chosen group showed a greater incidence of the following types of behavior than did subjects in the other two groups: "unasked-for suggestions to the psychologist for the welfare of the others," and "visits to the psychology office in behalf of another individual (instead of self)." "Complaints (to the psychologist) of another girl's conduct towards her" were noted twice as often for the under-chosen as for the average-chosen, and this kind of behavior was rarely noted for the over-chosen.

Using subjects taken from the same groups from which the subjects for the present study were taken, using the same criteria, namely, play and work, as used in the present study, Romano, during the school year 1950-1951, investigated the behavior characteristics of acceptable and non-acceptable children. The children were asked to name those children with whom they would prefer to work and those with whom they would prefer to play. In a re-test of the children ten weeks later the same criteria and procedure were used. Those children who

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remained in the highest and lowest quartiles were selected for further study. Since there were only seventeen of these, and since the investigator planned to make an intensive study of twenty children, he selected three more children from another first-grade class, using the same criteria and procedure as that used in selecting the seventeen from the other groups. In those instances where two or more children had approximately the same peer status, the teacher was asked to select the child to be studied further. Time-sampling observations of the children in the high and low groups was the method employed to determine behavior characteristic of each group. Seven ten-minute and seven five-minute observations were made on each child. Behavior categories were derived from the behavior notations. Twenty-five categories were utilized in the final analysis. Other data included in his study were Intelligence Quotient, height, weight, father's occupation, age, and the home situation. Each teacher rated the children in her class who were used in the study on the Winnetka Scale for Rating School Behavior and Attitudes.

The behavior of each child was analyzed separately, and an analysis of the behavior of the high and the low groups was also made.

Romano concluded that the behavior of the most acceptable children and the behavior of the least acceptable children is more alike than it is different. The most significant difference
that was found between the two groups was found in the amount that each contributed to the group in a voluntary manner. A significant difference in favor of the acceptable children was found in the frequency of smiling. The acceptable children were found to conform to an extent significantly greater than did the unacceptable children. The children in the acceptable group were found in friendly activity with one other child more often than the unacceptable children, and they were less often found alone. The children of the acceptable group had an intelligence quotient eighteen points higher, on the average, than did the children of the non-acceptable group. As rated by the teachers, the acceptable group was, on the whole, very cooperative, showed more social consciousness, was better emotionally adjusted, was better in leadership and responsibility than the non-acceptable group.

\[17\]

Definition of Terms

"Social acceptance," as the term is used in this study, refers only to peer status as determined by choosing on sociometric criteria.

In this study, the term "group" is defined as three or more individuals.

\[17\]
Romano, op. cit., pp. 1-85.
Subjects Used

The subjects used in this study are pupils in three second-grade classes—two classes from Sam Houston Elementary School and one class from North Texas State Laboratory School. Both of these schools are located in Denton, Texas. The total number of pupils in these three classes is ninety-six. By means of sociometric choosing, twenty of these students were selected for the purposes of this study. Eight of these twenty children are boys and twelve of them are girls.

Limitations of the Study

Since the number of subjects used in this study is very small, the findings of this study should not be taken as conclusive evidence. Although these findings are subjected to rigorous statistical criteria, broad generalizations are not warranted, and this investigation should be regarded merely as a pilot study.
CHAPTER II

SOURCES OF DATA

The principal data used in this study were gathered by means of a sociometric technique and a time-sampling technique.

The Sociometric Technique

The subjects used in this study were differentiated into acceptable and non-acceptable groups by means of a sociometric test which was administered during the latter part of September, 1951. Pupil choices in the three classes were made on the basis of the following two criteria:

If you were going to choose someone to work with, such as to build something, make something or paint with, which one would you choose? Which other ones? or (who else)?

If you were going to choose someone to play with, which one would you choose? Which other ones? or (who else)?

The teachers explained the criteria to those children who did not seem to understand them. The children were encouraged to make as many choices as they wished.

The number of choices each child made on each of the two criteria ranged from three to thirty-three. Since some of the children made so many choices, it would seem, perhaps, that they were not very well aware of the meaning of the choosing situation and that they were choosing very indiscriminately.

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As a means of checking the validity of this seemingly indiscriminate choosing, the children in two of the classes were asked to indicate those children whom they most preferred as work companions and play companions by placing marks beside some of the choices which they had previously made. The number of these choices made by each child ranged from zero to thirteen. Each child's score was determined by adding twice the number of choices with marks beside them which he received to the number of choices without marks beside them which he received. These scores were then used in the calculating of each child's rank in his class. In one of the classes (N=33) the children's ranks as determined by this method was compared by the Rank Correlation Coefficient method to their ranks as determined on the basis of unweighted choices alone. This coefficient was found to be .76. This high positive correlation is an indication that the use of weighted scores is probably not necessary and that the children's original choosing was valid and meaningful.

Twenty children were selected from the three classes for further study. This selection was made on the basis of the children's ranks in their respective classes as determined by both weighted and unweighted scores in two of the classes, and as determined by unweighted scores alone in that class which was not asked to make more discriminating choices. Eight children who ranked in the first quartile on both choosing criteria were selected as the acceptable, or high,
group, and twelve children who ranked in the fourth quartile on both criteria were selected for the non-acceptable, or low, group.

The Time-Sampling Technique

The time-sampling observations were taken during October and November and the first half of December, 1951. Each child was observed 100 minutes—these minutes being the total of twenty five-minute observation periods. This writer believes that a fairly representative sampling of the children's behavior was obtained during the twenty five-minute periods. Five minutes is probably the optimum time for observation periods. When five-minute periods are used, the children are less likely to become aware of being observed than they are when longer periods are used.

The subjects were observed while engaged in free play on the playgrounds and during free activity periods in their classrooms. They were not observed while engaged in any activity which was organized by a teacher, playground instructor, or other adult if it seemed to the observer that the activity of the child was very much restricted or that his contacts with other children were inhibited or controlled to a considerable degree by the adult in charge.

The behavior notations taken during the observations consist of the child's overt behavior, including the conversations that were heard. To insure obtaining a record
of all behavior which might be of social or inter-personal significance, all of the behavior manifested by the children of which the observer was aware was recorded. As an added safeguard against the possibility of omitting, or overlooking, much of the inter-personal significance of the behavior, the behavior notations were, insofar as possible, simple descriptions of what the child actually did while being observed. The behavior was not tallied against a list of behavior categories.

As a means of obtaining a quantitative evaluation of the subjects' behavior, a twenty-second time interval was used in recording the notations. It seemed necessary to use a time interval, since some of the children sometimes smiled or talked almost continuously throughout the five-minute observation periods. Also, the children were sometimes alone, or in a group, or engaged in friendly activity with one other child for several minutes. If a child manifested some certain behavior during one twenty-second interval and then continued that same behavior into the next twenty-second interval, or repeated that same behavior during the next twenty-second interval, then he was given two notations for that behavior. Thus if he smiled almost continuously for more than forty seconds, but not more than sixty seconds, he was given three notations for smiling. Since the children usually showed several kinds of behavior during each twenty-second
interval and continued or repeated some of these kinds of behaviors in succeeding intervals, it was very difficult to apply this timing method rigorously but it was followed as nearly as possible.

Except when the child being observed was running on the playground, the observer was always within ten to fifteen feet from him. When the child being observed was in the classroom, the observer sat to one side and in front of the child. When any of the children initiated a conversation with the observer, the observer terminated the conversations as quickly as possible and walked away from the child. The observers were as unobtrusive as possible. It seemed to the writer that the children became accustomed to the presence of the observers and that the presence of the observers had very little effect upon the behavior of the children.

The writer did all of the observations of the eleven children in the two classrooms at the Sam Houston Elementary School. He did forty-six of the observations at the North Texas Laboratory School. Bonney, professor of psychology, did fifty-one of the observations at the North Texas Laboratory School, and Reynolds, study of psychology, did eighty-three of the observations at the North Texas Laboratory School.

As a means of checking the validity of the behavior notations taken during the observation periods, Bonney did ten
simultaneous observations with the writer and ten with Reynolds. The subjects used for these simultaneous observations were selected at random. These behavior notations were then tallied against a list of behavior categories. The percentage of agreement between the notations taken by Bonney and those taken by the writer was determined by adding the number of notations taken by Bonney to the number taken by the writer, dividing this sum by two, and then dividing the number obtained into the number of agreements. For the purposes of this study, an agreement is defined as a notation of the behavior of a particular subject made by one observer during an observation period which is the same as a notation of the behavior of that same subject taken by another observer during that same observation period. The percentage of agreement between the notations taken by Bonney and those taken by the writer during the ten simultaneous observation periods was found to be 63 per cent. The same procedure was followed in determining the percentage of agreement between the notations taken by Bonney and those taken by Reynolds. This agreement was found to be 62 per cent.

The low percentage of agreement between the behavior notations taken by Bonney and those taken by Reynolds and the writer is probably due largely to lack of agreement between the observers as to what constitutes certain kinds of behavior. Reynolds and the writer probably did not have well
defined ideas of what does and what does not constitute group activity, especially during the early part of the study. Inability to apply rigorously the twenty-second time interval to the notations probably contributed to the lack of agreement. Difficulty in staying close to the children while they were running on the playground may be a factor causing part of the lack of agreement.

It should be noted that this lack of agreement is perhaps not too serious, since there is no reason to believe that it favors either the acceptable group or the non-acceptable group; that is, if an observer tends to make too many, or too few, notations of a certain behavior while observing a child in the acceptable group, there is no reason, apparent to this writer, to believe that the observer would not have the same tendency while observing a child in the non-acceptable group.

The behavior notations were tallied against a list of twenty-five behavior categories. This list of behavior categories was taken from a list used in a previous study and was revised as follows:

I. Non-Conforming Behavior that Is not Directed Against Any One Child, such as:

- Making noise
- Rubbing desk
- Whistling
- Running across room
- Looking at another's work
- Jumping or skipping in room
- Falling on floor
- Rocking chair
- Marking on board
- Hitting objects
Kicking feet
Talking out loud
Reading aloud
Mumbling, singing
Holding ball
Answering out of turn
Playing with objects or coloring during teacher instructions
Waving paper in air

II. Attention-Demanding Behavior

Tries to get another child to choose him for leader for a part in a game
Shows thing he has made without being asked
Calls attention to something he is interested in when it is not in accord with the situation as defined by adult in charge.

III. Aggressive Acts Against Others or Their Possessions, such as:
Pushing
Hitting
Tripping
Hogging turn
Interfering with another's materials
Throwing objects at another
Talking without permission
Marking on others' paper
Grabbing things from others
Barging through a group

IV. Object of Some Form of Aggressive Action, such as:

Being pulled off slide
Being pushed
Being tripped
Being hit
Work being interfered with
Property being taken from him
Being told to move
Clothing being grabbed at or pulled
Arms or feet being grabbed

V. Aggressive Response to Aggression, such as:

Hitting back
Making verbal demands
Telling adult
Telling other children
Holding on to property that others try to get from him
Jerkling away when held
Continuing activity which another tries to stop

VI. Submissive or Passive Response to Aggression, such as:

Smiling
Ignoring
Becoming playful
Turning away
Crying
Repairing damage done by another child
Asking adult to help him out

VII. Speaks to One Child

VIII. Is Spoken to by One Child

IX. Speaks to a Group

X. Smiles

XI. Laughs or Giggles (when obviously in a context of good humor, good nature, or pleasantness)

XII. Ignored or Obviously Rejected by Another Child, such as:

Not being answered
Being left alone by another
Not being given what is requested
Told to go away

XIII. Ignores or Obviously Rejects Another Child, such as:

Refusing to have physical contact with another
Refusing to loan
Refusing verbal request of another child
Walks off and leaves another child
Does not look at something shown to him

XIV. Shows Displeasure with Another Child or His Possessions by Critical Remarks, Facial Expressions, or Gestures, such as:

Telling others to hurry up
Mimicking another child
Telling teacher or others about his complaint
Telling other child off

XV. Praises or Compliments Other Children, Their Possessions, or Their Achievements

XVI. Receives Praise or Compliments from Other Children Concerning Himself, His Possessions, or His Achievements

XVII. Individual Voluntary Contribution to a Group, such as:

Showing something to group when in accord with the situation
Giving suggestions
Bringing materials to school for group
Telling story
Raising hand to be called upon
Volunteering to clean up or work on something
Straightening up chairs

XVIII. Cooperative, Voluntary, Group Participation, such as:

Running in group
Wrestling or tusseling in group
Making something with group
Playing game in group

XIX. Receiving Aid, Gifts, or Sympathy from Another Child (Does not include simple answers to a question), such as:

Borrowing materials
Object being picked up for him
Being assisted in coloring or choosing colors
Situation being explained to him
Danger being pointed out to him
Receiving courteous remarks
Receiving objects
Directions being explained to him

XX. Giving Aid, Gifts, or Sympathy to Another Child, such as:

Making courteous remarks to others
Leaning materials
Showing place in book
Picking up objects for another
Explaining situation
Assisting in selection of materials
Assisting in coloring
Telling words to another child
Pointing out danger another child is in

XXI. Friendly Activity with One Other Child (obviously involving mutual acceptance of each other), such as:

Holding
Tripping
Hitting
Pushing
Wrestling
Tusseling
Looking in book together
Putting arms around another
Running together
Imitating another
Playing game together
Playing with same object
Singing with another child

XXII. Engaged in Some Kind of Activity Alone in a Free Play or Free Activity Period, such as:

Sliding down board alone
Playing on board alone
Walking alone
Coloring alone
Running alone
Reading alone
Jumping up and down by himself

XXIII. Bodily Self Contact, such as:

Sucking fingers
Biting nails, arms, clothing, objects
Picking nose
Twisting clothes
Rubbing or scratching parts of body
Playing with hair
Shaking head several times
Putting object in mouth

XXIV. Watching Another Child or Other Children

XXV. Being Watched by Another Child or Other Children
It should be noted that some of the behavior specifics listed above are listed under more than one category. For example, "hitting" is listed under Category III—"aggressive acts against others or their possessions"—and is also listed under Category XXI—"friendly activity with one other child." When making notations which could be classified under more than one category, it is necessary for the observer to describe the situation in which the behavior specific occurred so that it may be classified properly.

Twenty of the behavior observations were used in checking the validity of the classification of the notations by the behavior categories. Two copies of these twenty observations were made. Using one of these copies, Bonney tallied the behavior notations of the twenty observations against the twenty-five behavior categories. Using the other copy, the writer also tallied the behavior notations against the twenty-five categories. Employing the same method as that used in determining the percentage of agreement between the observers in taking the notations, a third person calculated the percentage of agreement between the tallies made by Bonney and those made by the writer. This percentage of agreement was found to be 98 per cent.

In order to reach such a high percentage of agreement in classifying the behavior notations, it is necessary that the categories used in classifying the notations be well
defined. That the categories used in this study are well
defined is shown by this 98 per cent agreement.
CHAPTER III

THE SOCIAL BEHAVIOR OF THE ACCEPTABLE GROUP
COMPARSED WITH THE SOCIAL BEHAVIOR OF THE
NON-ACCEPTABLE GROUP

The frequencies of the behavior notations in each of
the twenty-five behavior categories for each child in the
acceptable group were totaled, and this total was then
divided by the number of children in the acceptable group.
Thus the means of the frequencies in each category were
obtained for the acceptable group. The same procedure was
used in determining the mean of the frequencies in each
category for the non-acceptable group.

The difference between the means of the acceptable group
in each category and the corresponding means of the non-ac-
ceptable group in each category, the standard error of each
of these differences, the t score of each of these differences,
and the level of confidence for each of these differences were
computed and are presented in Table 1. The formula used to de-
termine the standard error of the difference between the means
and the t score is:

\[
t = \frac{m_1 - m_2}{\sqrt{\frac{n_1 \bar{\sigma}_1^2 + n_2 \bar{\sigma}_2^2}{n_1 + n_2 - 2}}} \left( \frac{1}{n_1} \frac{1}{n_2} \right)
\]
TABLE 1

FREQUENCIES, MEANS, STANDARD DEVIATIONS, DIFFERENCES BETWEEN THE MEANS, STANDARD ERRORS OF THE DIFFERENCES BETWEEN THE MEANS, t SCORES, AND LEVELS OF CONFIDENCE

<table>
<thead>
<tr>
<th>Categories</th>
<th>Frequencies</th>
<th>Means</th>
<th>Standard Dev.</th>
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<tr>
<td></td>
<td>Acceptable</td>
<td>Non-acceptable</td>
<td>Acceptable</td>
</tr>
<tr>
<td></td>
<td>group</td>
<td>group</td>
<td>group</td>
</tr>
<tr>
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<td>1</td>
<td>10</td>
<td>.12</td>
</tr>
<tr>
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<td>11</td>
<td>22</td>
<td>1.38</td>
</tr>
<tr>
<td>3</td>
<td>29</td>
<td>51</td>
<td>3.62</td>
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<td>4</td>
<td>19</td>
<td>47</td>
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<td>5</td>
<td>8</td>
<td>19</td>
<td>1.00</td>
</tr>
<tr>
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<td>8</td>
<td>19</td>
<td>1.00</td>
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<td>7</td>
<td>589</td>
<td>598</td>
<td>73.62</td>
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<tr>
<td>8</td>
<td>431</td>
<td>492</td>
<td>53.88</td>
</tr>
<tr>
<td>9</td>
<td>154</td>
<td>122</td>
<td>19.25</td>
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<tr>
<td>10</td>
<td>341</td>
<td>291</td>
<td>42.62</td>
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<tr>
<td>11</td>
<td>156</td>
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<td>19.50</td>
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<td>14</td>
<td>34</td>
<td>1.75</td>
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<td>13</td>
<td>8</td>
<td>15</td>
<td>1.00</td>
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<td>14</td>
<td>30</td>
<td>34</td>
<td>3.75</td>
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<tr>
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<td>0</td>
<td>0</td>
<td>...</td>
</tr>
<tr>
<td>17</td>
<td>15</td>
<td>6</td>
<td>1.88</td>
</tr>
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<td>18</td>
<td>541</td>
<td>518</td>
<td>67.62</td>
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<td>18</td>
<td>11</td>
<td>2.25</td>
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<td>21</td>
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<td>25</td>
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<td>27</td>
<td>3.38</td>
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</tbody>
</table>

The levels of confidence given in Table 1 were taken from Table III of Fisher and Yates.

18

R. A. Fisher and F. Yates, Statistical Tables for Biological, Agricultural and Medical Research, p. 11.
TABLE 1--Continued

<table>
<thead>
<tr>
<th>Difference between the means</th>
<th>SE of the difference between the means</th>
<th>t scores</th>
<th>Levels of confidence</th>
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<tr>
<td>.710</td>
<td>.46</td>
<td>1.530</td>
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</tr>
<tr>
<td>.455</td>
<td>.79</td>
<td>.576</td>
<td>Not significant</td>
</tr>
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<td>.625</td>
<td>2.42</td>
<td>.259</td>
<td>Not significant</td>
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<td>1.242</td>
<td>1.08</td>
<td>1.400</td>
<td>Not significant</td>
</tr>
<tr>
<td>.583</td>
<td>.54</td>
<td>1.088</td>
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</tr>
<tr>
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<td>.38</td>
<td>1.514</td>
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</tr>
<tr>
<td>23.795</td>
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<td>2.476</td>
<td>5 per cent</td>
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<td>12.875</td>
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<td>1.676</td>
<td>Not significant</td>
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<tr>
<td>9.083</td>
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<td>2.740</td>
<td>2 per cent</td>
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<tr>
<td>18.375</td>
<td>7.39</td>
<td>2.487</td>
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<tr>
<td>12.670</td>
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<td>3.851</td>
<td>1 per cent</td>
</tr>
<tr>
<td>1.080</td>
<td>.74</td>
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<tr>
<td>.250</td>
<td>.55</td>
<td>.454</td>
<td>Not significant</td>
</tr>
<tr>
<td>.920</td>
<td>1.34</td>
<td>.687</td>
<td>Not significant</td>
</tr>
<tr>
<td>.....</td>
<td>.....</td>
<td>.....</td>
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<td>.....</td>
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<tr>
<td>1.375</td>
<td>.55</td>
<td>2.516</td>
<td>5 per cent</td>
</tr>
<tr>
<td>24.458</td>
<td>11.63</td>
<td>2.104</td>
<td>5 per cent</td>
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<tr>
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<td>.84</td>
<td>1.596</td>
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</tr>
<tr>
<td>.250</td>
<td>.51</td>
<td>.493</td>
<td>Not significant</td>
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<td>13.750</td>
<td>8.11</td>
<td>1.696</td>
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<td>42.417</td>
<td>15.53</td>
<td>2.732</td>
<td>2 per cent</td>
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<td>1.705</td>
<td>4.62</td>
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<td>3.625</td>
<td>6.53</td>
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<td>1.125</td>
<td>1.38</td>
<td>.815</td>
<td>Not significant</td>
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</table>

Table 1 shows that one of the differences between the means is significant at the 1 per cent level of confidence. This difference obtains in category eleven--laughing--and is in favor of the acceptable group; that is, the children in the acceptable group were found to laugh more frequently than
the children in the non-acceptable group. This finding means that if 100 similar pairs of acceptable and non-acceptable groups were studied under similar conditions, a difference between the means this large, or larger, would be found ninety-nine times for this behavior.

The differences between the means in two of the categories was found to be at the 2 per cent level of confidence. These two categories are category nine--speaking to a group--and category twenty-two--being alone during a free play or free activity period. These two differences are also in favor of the acceptable group; that is, the children in the acceptable group were found to speak to a group more often than the children in the non-acceptable group and they were found to be alone during a free play or free activity period less often than were the children in the non-acceptable group.

Differences between the means in favor of the acceptable group in four of the categories were found to be significant at the 5 per cent level of confidence. These four categories are category seven--speaking to one other child, category ten--smiling, category seventeen--individual, voluntary contribution to a group, and category eighteen--cooperative, voluntary group participation.

The fact that the frequencies in category seventeen are quite small--fifteen for the acceptable group and six for the non-acceptable group--may lessen somewhat the significance that should be attached to the difference between the means which
obtains in this category. However, Romano found a difference between his acceptable and non-acceptable groups in frequency of this behavior which is significant at the .1 per cent level of confidence.19

Only one tally was made in category fifteen—praising or complimenting other children, their possessions, or achievements. Only one child in the acceptable group was heard to praise or compliment another child, his possessions, or achievements, and none of the children in the non-acceptable group was heard to praise or compliment another child, his possessions, or his achievements. No tallies were made in category sixteen—receiving praise or compliments from other children concerning himself, his possessions, or his achievements.

Since the observers could not hear all of the conversations of the children, it is possible that these second-grade children do sometimes praise or compliment other children. However, this finding may be taken as an indication that praising or complimenting others is a kind of behavior that children have not learned before they reach this age.

The differences between the means in categories one, two, three, four, five, six, eight, twelve, thirteen, fourteen, nineteen, twenty, twenty-one, twenty-three, twenty-four, and twenty-five do not approach statistical significance. This

19 Romano, op. cit., pp. 69-70.
finding is an indication that a significant difference does not exist between acceptable and non-acceptable populations of second-grade children as regards behavior represented by the categories named above. This behavior includes non-conforming behavior that is not directed against any one child, attention-demanding behavior, aggressive acts against others or their possessions, being the object of some form of aggressive action, aggressive response to aggression, submissive or passive response to aggression, being spoken to by one other child, being ignored or obviously rejected by another child, ignoring or obviously rejecting another child, showing displeasure with another child or his possessions, receiving aid, gifts or sympathy from another child, giving aid, gifts or sympathy to another child, bodily self-contact, watching another child or other children, and being watched by another child or other children.

A study of Table 1 reveals that these two groups are much more alike than they are different. None of the kinds of behavior investigated, including those kinds of behavior which were found to differentiate significantly between the two groups, was found to be manifested exclusively by either of the two groups. Category fifteen is an exception but only one tally was made in it.

Some of the findings of this study agree fairly well with the findings reported by Romano in his study of these same
second-grade groups of children when they were in the first grade. Since he studied the same groups of children, and since the procedure he employed in his study is similar to the procedure employed in this study, it may be worthwhile to compare the findings of the two investigations.

Both investigators found significant differences between their acceptable and non-acceptable group for the following kinds of behavior: (1) individual, voluntary contribution to a group, (2) smiling, and (3) being alone in a free play or free activity period. Each of these three differences is in favor of the acceptable groups in each study.

Romano found a significant difference between his acceptable and non-acceptable groups in frequency of non-conforming behavior. He found his acceptable group to exhibit non-conforming behavior less often than did his non-acceptable group. This difference is at the 1.8 per cent level of confidence. This investigator did not find a significant difference between his groups in frequency of non-conforming behavior. This difference between the results of the two studies may be due to the fact that some of Romano's observations were made while the children observed were in a formal classroom situation, whereas all of the observations used in this study were made while the children were in free play and free activity periods.

20 Romano, op. cit., pp. 69-71.
Romano found a significant difference between his two groups in frequency of friendly activity with one other child. The children in his acceptable group were more often found engaged in friendly activity with one other child than were the children in his non-acceptable group. This investigator did not find a significant difference between his two groups for this kind of behavior, although the children in his acceptable group did exhibit this kind of behavior more often than did the children in his non-acceptable group.

Speaking to one other child and voluntary group participation are to kinds of behavior for which this investigator found significant differences between his acceptable and non-acceptable groups, whereas Romano did not find significant differences for these two kinds of behavior.
CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The problem of this study is an investigation, by means of a time-sampling technique, the relationship between social behavior and social acceptance as determined by a sociometric technique.

The subjects used in this study are pupils in three second-grade classes--two classes from Sam Houston Elementary School and one class from North Texas State Laboratory School. Both of these schools are located in Denton, Texas. The total number of pupils in these three classes is ninety-six.

A sociometric test was administered to the children in the latter part of September, 1951. The results of the sociometric testing were used as a basis for ranking the children in their respective classes. Eight children in the highest quartile were selected as the acceptable group and twelve children in the lowest quartile were selected as the non-acceptable group.

Twenty five-minute observations of each child's behavior were made. The behavior specifics recorded during these observations were tallied against a list of twenty-five
behavior categories. The means of the frequencies in each category were found for each group. The difference between the means of the acceptable group in each category and the corresponding means of the non-acceptable group in each category, the standard error of each of these differences, the t score of each of these differences, and the level of confidence for each of these differences were computed.

Conclusions

The findings of this study lead to conclusions which are enumerated as follows:

1. The acceptable children in this study were found to smile and laugh a great deal more often than did the non-acceptable children. These differences are significant, particularly the one for laughing.

2. The acceptable children were found to speak to one other child and to a group more often than did the non-acceptable children. These differences are significant.

3. The acceptable children were more often found in a group and were less often found alone than were the non-acceptable children. These differences are significant.

4. The acceptable children more often contributed voluntarily to a group than did the non-acceptable children. This difference is significant.

5. The differences enumerated above are significant for the groups studied. Since these second-grade groups may not
be true random samples of a large second-grade population, and since the acceptable and non-acceptable groups used in this study are very small, the conclusions of this study should be regarded only as indications rather than as established findings.

Recommendations

The time-sampling technique used in this study requires well-trained and alert observers. Using a larger number of subjects and a refined time-sampling technique, future studies of this nature should result in many significant and valuable findings.

Teachers and leaders may help children gain more acceptance from their peers if they can help them to smile and laugh more often, speak more often, and play in groups more often. However, urging non-acceptable children to adopt the kinds of behavior found to be characteristic of acceptable children may not be the best way to help them. Infrequency of smiling, laughing, speaking, and playing in groups are probably as much symptoms of non-acceptance as they are causes of non-acceptance.
BIBLIOGRAPHY

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Unpublished Material
