A STUDY OF CONSTANCY OF SOCIOMETRIC POSITION
IN TWO DIFFERENT POPULATIONS

APPROVED:

[Signatures]

Major Professor

Minor Professor

Dean of the School of Education

Dean of the Graduate School
A STUDY OF CONSTANCY OF SOCIOMETRIC POSITION
IN TWO DIFFERENT POPULATIONS

THESIS

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

By

James R. Yates, B. S.
Denton, Texas
August, 1963
TABLE OF CONTENTS

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

Chapter

I.  INTRODUCTION ....................................... 1

   Statement of the Problem
   Significance of the Problem
   Related Studies
   Theory Construction

II. METHODS OF PROCEDURE ............................... 8

   Subjects
   Administration of Questionnaires
      at School
   Administration of Questionnaires
      in the Home
   Procedures of Comparison

III. COMPARISON OF THE CONSTANCY OF SOCIO-
     METRIC SCORES .................................. 16

IV. RESULTS AND CONCLUSIONS ......................... 36

   Results
   Conclusions

APPENDIX A ........................................... 40

APPENDIX B ........................................... 41

BIBLIOGRAPHY ......................................... 42
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Distribution of Christ's Haven for Children Students in Keller Public Schools by Grade and Class</td>
<td>10</td>
</tr>
<tr>
<td>II. Range of Choices on Criteria I, II, and III in Keller Public Schools and Christ's Haven for Children and Their Quartiles, with the Number of Christ's Haven Students Residing in Each Quartile</td>
<td>17</td>
</tr>
<tr>
<td>III. The Number and Per Cent of Christ's Haven for Children Students Residing in the Quartiles of Criteria I, II, and III</td>
<td>20</td>
</tr>
<tr>
<td>IV. A Quartile Comparison of the Relative Position of the Christ's Haven for Children Students on Criterion I in the Home and at School</td>
<td>22</td>
</tr>
<tr>
<td>V. A Quartile Comparison of the Relative Position of the Christ's Haven for Children Students on Criterion II in the Home and at School</td>
<td>26</td>
</tr>
<tr>
<td>VI. A Quartile Comparison of the Relative Position of the Christ's Haven for Children Students on Criterion III in the Home and at School</td>
<td>31</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

Statement of the Problem

Since its original introduction by J. L. Moreno and his subsequent founding of the professional journal of Sociometry (9) in 1937, sociometry has become an instrument of proven value in many different situations. The technique of sociometry has been applied to all phases of interpersonal relations and group structures. This method has been investigated from many different levels and positions to test its true usefulness in these situations.

The consistency of sociometric choices and positions has been related to social success, intelligence, and academic achievement by Bonney (3) and others (7). The constancy of sociometric scores has been related to teacher judgments of social success and to personality self-ratings by many investigators (2, 4, 5). Other areas in which consistency has been investigated are leadership of both educational and military groups, and stability of choices as a help in diagnosing group ills.

Of these many areas investigated as to constancy of sociometric scores, one area seems to have been overlooked.
This area of interest is: the extent to which social status of an individual, in one population, remains stable in another population of which he is a member.

The purpose of this study will be to ascertain the extent social acceptance, or social status of an individual in one population, measured sociometrically, tends to remain constant for that individual in another population.

Significance of the Problem

In times past, an individual could be born, live and die with no major change in the individuals with whom he associated. In today's modern world, most members of our society are frequently meeting, working with, and generally being brought in contact with new and different individuals. This being true, it may be said that each individual often finds himself in a new population.

Information that can be gathered as to the functioning of the individual in different populations can be put to valuable use by the leaders, members and others connected with these different groups. Substantiated evidence of the functioning of individuals in different populations will serve as a predictor of the probable behavior of most individuals in these contrasting groups. With such a predictor, proper group procedures can be formulated and put into effect with a measure of confidence.
Related Studies

As previously mentioned, studies of this nature appear to be somewhat lacking in numbers. Only a few are reported in prominent professional journals. Gronlund and Whitney (6) made a sociometric study of 340 students, who constituted the total population of a junior high school. Their study included three criteria which were intended to reveal the sociometric status of the students in three different populations: the homeroom, the whole school, and the neighborhood. They compared the status of the pupils in the different populations and found correlations that ranged from .67 to .78 as means for the twenty-one different homeroom groups into which the school had been divided. All of these correlations were significant at the .1 per cent level. A few pupils were found to lack the consistency found for the study as a whole. It was felt by the investigators that this was possibly due to certain temporary situational factors present at the time of the study.

Bell and French (1) conducted a study to investigate whether an individual's status in one five-man discussion group was significantly related to his status in other discussion groups in which he participates. The study was more concerned with leadership status than general sociometric status; however, other studies have shown the close tie between leadership and sociometric position and their dependency upon each other. Bell and French's data yielded
correlations ranging from -.03 to .98 with a mean correlation of .75 for the leadership consistency of the individuals' twenty-five leadership positions studied. It was felt by Bell and French that at most only 17 per cent of the variance in status could be ascribed to the changing of the individual to different groups.

A previously mentioned study by Bonney (3) did not specifically intend to investigate the characteristic of sociometric status consistency; however, it does yield indirect evidence in this area. In this study, 30 per cent of the group's membership changed in a one-year period. This rather large amount of change in membership of the group did not greatly affect the relative sociometric position of the different individuals who reamined in the group.

Roberts (8) investigated the social acceptance of a group of twenty-seven Boy Scouts in the Boy Scout Troop as well as in the school system in which they were students. A comparison was done on a quartile basis. With ten possible combinations of scores for each boy, the findings indicate: ninety-nine of the quartile ranks were the same; eighty-nine were one quartile different; thirty-four were two quartiles apart; and only four were three quartiles apart. These results gave rise to the following conclusions by Roberts:

1. Individuals that have high social acceptance in one group also tend to have high social acceptance in another group.
2. Individuals that have low social acceptance in one group also tend to have low social acceptance in another group (8, p. 53).

Theory Construction

Based on the knowledge obtained from related studies indicating that an individual seems to maintain a similar sociometric position from one population to another, it was felt that a theory could be stated which would be the basis for the present study. The gestalt, integrated approach to personality would seem to be the large body of knowledge supporting the findings in studies of this nature. This theory of personality would explain these previously mentioned results by suggesting that the organism reacts to his environment as a whole, not as if he were so many atoms reacting separately to each part of his environment. The individual would react to any environment as an integrated whole. If an individual is perceptive enough in one population to react to the other individuals in this population, supplying them with the things which are needed to develop psyche-tele relationships, it appears likely that the individual will be able to use these same skills in another population.

These statements give rise to three hypotheses.

1. Very few significant differences will be observed in the sociometric position of individuals from one population to another population.
2. Those individuals occupying highly chosen sociometric positions in one population will maintain a similarly high position in another population.

3. Those individuals occupying a low sociometric position in one population will maintain a similarly low position in another population.

As was observed in the related studies, not all individuals will maintain their relative sociometric position from one situation to another. For this reason it was felt that another theory was needed to include those individuals who do not maintain their relative position as expected under the gestalt, integrated theory of personality. The theory that an individual will interact uniquely with each new environmental situation is applied to this condition. Each individual interacts with each unique situation or environment. Not only does he carry himself as an integrated whole into each situation but he also interacts with the environment present. With this theory as a basis, a fourth hypothesis may be formulated: a few individuals will occupy a quite different sociometric position from one population to another population.
CHAPTER BIBLIOGRAPHY


5. Gronlund, N. E., "The Accuracy of Teachers' Judgments Concerning the Sociometric Status of Sixth Grade Pupils," Sociometry, XIII (1945), 197.


9. Sociometry, Published Quarterly by Beacon House, Inc.
CHAPTER II

METHODS OF PROCEDURE

Subjects

This chapter will provide explanation of the individuals involved in the investigation as well as the methods of procedure used. The subjects used in this study are all residents of Christ's Haven for Children. Christ's Haven is a Church of Christ supported orphanage for children of school age. The home is located some two miles northwest of Keller, Texas, which lies between Fort Worth and Denton, Texas.

The home is arranged into five separate cottages situated on a 290-acre farm. The number of children in these cottages varies from five to fifteen, with an average of thirteen. An honest attempt is made to present to the children a situation which is as close to a "normal" home as is possible under the circumstances. For this reason, each cottage has a "mother" and "father" living in it with the children. The girls live in one side of the cottage and the boys, the other side, with the kitchen and living room area in between the two sections. Each child is required to help with the chores in the afternoon after school. Girls help in the preparation of the evening meal and clean up
after the meal is completed; boys help with the livestock and other outside chores.

The children's ages range from 5 years to 17 years. Most of the children are not orphans in the true sense of the word but are generally court assigned, neglected children, or children placed in the home with the consent of relatives. There are sixty-three children in residence in the home; of this number, there are thirty-seven girls and twenty-six boys. In this study, fifty-nine of these children took part; four were not involved due to absence at the time of the study.

All of the children are transported to the town of Keller by school bus each school day and attend the public schools of the Keller Independent School District. The majority of the students enrolled in the Keller schools are rural students, Keller being a farm and ranch community. Special transportation is provided for the students for various school activities, such as sporting events, Future Farmers of America meetings, etc. All of the children of Christ's Haven who wish to participate in these activities are permitted to do so by both the school and the home.

The Keller Independent School District is composed of one elementary school containing grades one through eight, and one high school including grades nine through twelve. On the days of the investigations, there were 512 and 125 students
present respectively. The breakdown of the number of children from Christ's Haven in each grade and section is presented in Table I.

### Table I

**Distribution of Christ's Haven for Children Students in Keller Public Schools by Grade and Class**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Section</th>
<th>Children in Class</th>
<th>Children from Christ's Haven</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1</td>
<td>25</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>26</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>II</td>
<td>1</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>34</td>
<td>0</td>
</tr>
<tr>
<td>III</td>
<td>1</td>
<td>35</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>38</td>
<td>4</td>
</tr>
<tr>
<td>IV</td>
<td>1</td>
<td>31</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>34</td>
<td>0</td>
</tr>
<tr>
<td>V</td>
<td>1</td>
<td>27</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>VI</td>
<td>1</td>
<td>34</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>34</td>
<td>1</td>
</tr>
<tr>
<td>VII</td>
<td>1</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>26</td>
<td>2</td>
</tr>
<tr>
<td>Grade</td>
<td>Section</td>
<td>Children in Class</td>
<td>Children from Christ's Haven</td>
</tr>
<tr>
<td>--------------</td>
<td>---------</td>
<td>-------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>VIII</td>
<td>1</td>
<td>30</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td>High School Grades 9 - 12</td>
<td>1</td>
<td>28</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>24</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>637</td>
<td>59</td>
</tr>
</tbody>
</table>

When the children from Christ's Haven go to school in Keller, a situation is created in which the same individuals are present in two quite different populations. One unique population is produced by the children living at the home, and another population is created in the Keller schools. The opportunity is, therefore, afforded to observe the Christ's Haven children independently in both populations by means of sociometric testing. It is significant at this point to note that many of the choices received by the students in the testing at the school were not included in the study. The choices which were ignored were the choices that a student from Christ's
Haven received from another child from Christ's Haven. It was felt that it was necessary to remove these choices in order that there would be two completely distinct and separate populations for the comparison of sociometric ranks.

Administration of Questionnaire at School

Sociometric questionnaires were administered to the total populations of both the orphans' home and the two schools within a six-day period. The questionnaires used identical criteria for both populations with only slight changes in the wording so that each would apply specifically to the school or to the home. (See Appendices A and B.) The first criterion expressed interest in the children's best friends without restriction as to number or group from which choices might be selected. The second criterion was used with the purpose in mind of discovering individuals of responsibility. The last criterion restricted the choice of individuals to the particular classroom in which the student was currently a member.

The questionnaire applying to the school situation was administered first to the high school students. It was administered to all the English classes of Keller High School in one day. Since all students are required to take English in all four years of high school, conducting the investigation
in all the English classes resulted in the acquisition of a questionnaire from the total school population. Four days later, the same questionnaire was administered to every section of each grade in the elementary school.

In both the high school and the elementary school, previous explanation was made to the teachers as to the purpose, uses, and methods of the study. In the high school, necessary explanations and essential arrangements were made with the English teachers involved before the questionnaire was administered. The elementary school principal gave explanations and answered questions relating to the investigation in a teachers' meeting, since all the teachers in the school would be involved.

All the teachers in both schools were requested to make the following statement in their class as an introduction to the students: "Class, we are interested in knowing who your friends are here in school. Answer these questions for us if you will. Feel free to list anyone you wish, because no one will see or be told your choices." Any questions which the children raised were answered honestly by the teacher if she knew, or by the investigator. In most classes a question would arise as to the identity of the investigator; the teacher then introduced him as a student at North Texas State University who was helping with the investigation.
In the lower grades of the elementary school, it was necessary to give quite a bit of individual help in interpreting the questionnaire and in the spelling of the names to be listed under the criteria. For this purpose the teacher, the investigator and his assistant were able to satisfy those students needing help fairly quickly.

Administration of Questionnaires in the Home

Two days after the administering of the questionnaire to the elementary school, the second questionnaire was presented to the children at Christ's Haven. The questionnaire was administered to the separate cottages individually; this method gained a completed questionnaire from every child living at the home. A previous sociometric study at Christ's Haven had already familiarized each cottage's "mother" and "father" with the investigator and the purposes and results of such methods of investigation. A statement very similar to the one made by the teachers at school was made by either the cottage's "mother" or "father" as to their interest in knowing the friends of each of their "children."

In the home, as in the elementary school, the younger children required individual help with their questionnaires. Once again the instructions were to merely raise their hands if they did not understand or needed assistance of any kind.
Procedures of Comparison

Since there was a substantial difference in the number of possible choices a child might receive in the home and in the school, it was not practical to compare them except by means of quartiles. A correlation of the choices received was made impossible by the widespread distribution of the Christ's Haven students throughout the Keller school grades. In many of the grades the age differential was so large that a different interpretation of the criteria was very likely due simply to the different maturation of the students. This different interpretation of the criteria would prevent a meaningful correlation from being obtained.

Each child's number of choices received on each criterion of the questionnaire was totaled; these totals were then inserted into the proper quartile. This procedure was employed for each child in Christ's Haven for both administerings of the questionnaires, that is, at both the home and the school. The information obtained in this manner makes it possible to compare the relative position of the child from one population to another by means of the quartile to which each child belongs in each of the two situations.
CHAPTER III

COMPARISON OF THE CONSTANCY OF SOCIOMETRIC SCORES

This chapter presents the comparison in consistency of the sociometric scores from the Keller Public Schools and Christ's Haven for Children. The comparison of the children's sociometric scores in the two different populations is accomplished by means of the establishment of quartiles. These quartiles are divisions of the three different criteria previously discussed. The table on pages 17 and 18 is a result of these divisions.

The distribution of the individuals within the quartiles is not in strict conformance with the 25 per cent which is placed in each quartile of a normally distributed population. There were many tie scores, and it therefore became necessary to arrange the population so that all individuals with identical scores reside in the same quartile. The result is, therefore, that some of the criteria have quartiles within them with a fairly large variance in terms of number of individuals; actually, such variance is small in terms of the per cent of the total number of individuals involved in the study.

In the Keller schools, the range of choices received is different for each of the three criteria; however, the largest amount of variance occurs between criterion I, Best Friends,
<table>
<thead>
<tr>
<th>Quartile</th>
<th>Best Friends</th>
<th>Work Companions</th>
<th>Immediate Population—Preferred Members</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range of Choices</td>
<td>Number of Students</td>
<td>Range of Choices</td>
</tr>
<tr>
<td>I</td>
<td>0-3</td>
<td>174</td>
<td>0-1</td>
</tr>
<tr>
<td>II</td>
<td>4-6</td>
<td>178</td>
<td>2-3</td>
</tr>
<tr>
<td>III</td>
<td>7-10</td>
<td>140</td>
<td>4-5</td>
</tr>
<tr>
<td>IV</td>
<td>11-24</td>
<td>145</td>
<td>6-17</td>
</tr>
</tbody>
</table>

TABLE II
RANGE OF CHOICES ON CRITERIA I, II, AND III IN KELLER PUBLIC SCHOOLS AND CHRIST'S HAVEN FOR CHILDREN AND THEIR QUARTILES WITH THE NUMBER OF CHRIST'S HAVEN STUDENTS RESIDING IN EACH QUARTILE
TABLE II —Continued

<table>
<thead>
<tr>
<th>Quartile</th>
<th>Christ's Haven—Total Population—59 Children</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Best Friends</td>
</tr>
<tr>
<td></td>
<td>Range of Choices</td>
</tr>
<tr>
<td>I</td>
<td>0-2</td>
</tr>
<tr>
<td>II</td>
<td>3-</td>
</tr>
<tr>
<td>III</td>
<td>4-5</td>
</tr>
<tr>
<td>IV</td>
<td>6-10</td>
</tr>
</tbody>
</table>
and criterion II, Work Companions. Criterion I had a range of no choices to twenty-four choices received; the highest number of choices received on the second criterion was seventeen. This difference in choices received seems to indicate that the students were more selective in the choosing of an individual for an activity in which there would be sharing of an important responsibility. The decrease in the number of choices received on criterion II is made more decisive upon examination of criterion III, the choice of students to remain in the immediate population. The number of choices received increases again to a level much closer to the number found in criterion I.

In the home, a similar situation exists. In this population, the largest variance among the choices occurs between criterion II and criterion III. The choice of work companions ranges from zero to nine; the choice of persons to remain in the immediate population progresses up to twelve choices received. Once again the indication of more scrutinious choosing on the criterion of work companions is furthered by the difference seen here. Best friend choices received has a slightly higher level than work companions, having a total of ten choices received.

Table III presents information as to the position constancy of the Christ's Haven students within the various quartiles.


<table>
<thead>
<tr>
<th>No. of Students</th>
<th>Best Friends</th>
<th>Wind Companions</th>
<th>Population--Preferred Member</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quartiles Apart</td>
<td>Per Cent</td>
<td>Quartiles Apart</td>
</tr>
<tr>
<td>16</td>
<td>0</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>39</td>
<td>16</td>
</tr>
<tr>
<td>17</td>
<td>2</td>
<td>28</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
</tbody>
</table>

Comparing the quartile rank for best friends, it is noted that sixteen of the fifty-nine students, or approximately 27 per cent, remained in exactly the same quartile in both the Keller schools and in the home. There were 23 students, or approximately 39 per cent, who varied only one quartile from one population to the other. Seventeen students, or approximately 28 per cent are found to have varied as much as two quartiles. Only 5 per cent, three students, were found to change sociometric position as much as three quartiles. It was felt that this 66 per cent of the students who varied no more than one quartile was quite significant, since such a narrow range of choices afford the opportunity for a small number of scores to change the relative position of the student greatly.
Inspection of the quartile rank of the students on the criterion of work companions reveals that nineteen students or 32 per cent remained within their respective quartiles for both sociometric questionnaires. The students who varied only one quartile comprise 27 per cent of all the children of Christ's Haven. Examination of the rank of the individuals shows that some 27 per cent or sixteen students varied as much as two quartiles from population to population. Those students who varied as much as three quartiles comprise only 14 per cent of the total number of students.

The preference of individuals for those in the immediate population resulted in twenty-two persons or 37 per cent in the same quartile on both rankings of the scores. There were twenty-four students one quartile apart; only eight individuals varied as much as two quartiles; and only five varied three quartiles.

The individuals from Christ's Haven are ranked according to their position at the home and according to their respective position at school in Table IV on pages 22, 23, and 24.

Students number 29, 38, and 42 received the highest number of choices from the other children at Christ's Haven; however, these three were positioned in the second quartile at school, having received half as many choices from the students there. Students number 10 and 12 received the highest number of choices at school; 10 was also in the fourth quartile at
<table>
<thead>
<tr>
<th>Student Number</th>
<th>Christ's Haven</th>
<th>Keller</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Choices Received</td>
<td>Quartile</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>54</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>49</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>50</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>32</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>55</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>59</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>34</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>31</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>44</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>33</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>36</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>24</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Student Number</td>
<td>Christ's Haven</td>
<td>Keller</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>Number of Choices Received</td>
<td>Quartile</td>
</tr>
<tr>
<td>39</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>22</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>48</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>56</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>46</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>57</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>41</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>28</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>21</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>20</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>40</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>19</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>27</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>43</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>51</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>45</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>47</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Student Number</td>
<td>Christ's Haven</td>
<td>Keller</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>Number of Choices Received</td>
<td>Quartile</td>
</tr>
<tr>
<td>25</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>26</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>58</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>52</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>30</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>16</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>53</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>23</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>35</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>29</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>38</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>42</td>
<td>12</td>
<td>4</td>
</tr>
</tbody>
</table>
Christ's Haven, but 12 was only in the second quartile at the home. Of those children residing in the fourth quartile at the home only three, numbers 1, 10, and 23, do not vary more than one quartile. Those students within the first quartile at the home maintain a like status at school. Only one student, number 32, varies as much as one quartile.

Students number 3, 52, and 58 were found to be the widest apart in constancy. Number 3 was in the fourth quartile at the home with some ten choices; he received only three choices at school as best friend. Numbers 52 and 58 were positioned in the fourth quartile at the home with seven choices received; they were in the first quartile at school with three and no choices received respectively.

There were only four students who received choices at school great enough to place them in a higher quartile than they had occupied at the home. Numbers 45, 33, and 32 varied only one quartile; however, number 12 was placed in the second quartile at the home and moved to the fourth quartile at school.

Many of the differences in quartile rank can be traced to a difference of only one or two choices received. This becomes evident when the total choices received by all students in both situations are compared. There was a total of 195 choices given and received by the students at the home administering of the questionnaire; a total of 201 choices were received in the school administration. As previously mentioned,
many of the choices received by the students in the school administration were not included in the study; that is, the choices a student from Christ's Haven received from another child from Christ's Haven. Through this method, two distinct populations emerge.

A comparison of the quartile rank of the students as work companions is presented in Table V.

**TABLE V**

A QUARTILE COMPARISON OF THE RELATIVE POSITION OF THE CHRIST'S HAVEN FOR CHILDREN STUDENTS ON CRITERION II IN THE HOME AND AT SCHOOL

<table>
<thead>
<tr>
<th>Student Number</th>
<th>Christ's Haven</th>
<th>Keller</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Choices Received</td>
<td>Quartile</td>
</tr>
<tr>
<td>54</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>49</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>50</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>32</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>33</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>36</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Student Number</td>
<td>Christ's Haven</td>
<td>Keller</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>Number of Choices Received</td>
<td>Quartile</td>
</tr>
<tr>
<td>55</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>59</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>34</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>31</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>40</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>44</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>46</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>39</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>57</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>58</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>22</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>47</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>37</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Student Number</td>
<td>Number of Choices Received</td>
<td>Quartile</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>41</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>25</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>26</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>27</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>43</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>48</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>51</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>56</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>45</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>52</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>16</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>28</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>29</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>53</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>30</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>
TABLE V -- Continued

<table>
<thead>
<tr>
<th>Student Number</th>
<th>Christ's Haven</th>
<th>Keller</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Choices Received</td>
<td>Quartile</td>
</tr>
<tr>
<td>14</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>35</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>38</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>42</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>23</td>
<td>9</td>
<td>4</td>
</tr>
</tbody>
</table>

In the selection of work companions, student number 23 received the highest number of choices at the home—nine; however, he received only three choices at school which placed him in the second quartile. Student number 1 received seven choices at the home and remained in the fourth quartile at school with eight choices received. There were seven students who received six choices at the home; however, only one of the seven—number 10—maintained his position in the fourth quartile at school. Only one other, number 11, was as close as one quartile apart. Of all the students in the fourth quartile, only numbers 1, 10, 11, and 12 vary only one quartile. Out of twenty students residing in the first quartile, only five, numbers 18, 21, 24, 33 and 50 vary any from the quartile, of
the home questionnaire. Number 33 varies two quartiles; number 21 varies three quartiles; and the other three vary only one quartile.

In the area of work companions, number 3 is some three quartiles apart in the two varying populations. Number 3 is also three quartiles apart in the selection of best friends. In each instance, he was a highly chosen individual at Christ's Haven but received few choices at school. There were seven additional students who were three quartiles apart in the choices received at school and at the home as work companions. Of these seven students, five of them were also two quartiles apart on the selection of best friends. All five of the students were more highly chosen at the home than at school. One student, number 21, received only one choice at the home on criterion II and was placed in the first quartile; she received six choices at school and thus moved into the fourth quartile. Numbers 33 and 50 were situated in the first quartile at the home but were two quartiles different at school, residing in the third quartile.

Table VI presents the relative quartile position of the Christ's Haven children on criterion III. This table is found on pages 31, 32, and 33.

In the selection of individuals to remain in the immediate population, numbers 3 and 30 received the highest number of choices. These two individuals received ten choices which places them in the fourth quartile in the home situation;
TABLE VI

A QUARTILE COMPARISON OF THE RELATIVE POSITION
OF THE CHRIST’S HAVEN FOR CHILDREN STUDENTS
ON CRITERION I IN THE HOME AND AT SCHOOL

<table>
<thead>
<tr>
<th>Student Number</th>
<th>Christ’s Haven</th>
<th>Keller</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Choices Received</td>
<td>Quartile</td>
</tr>
<tr>
<td>15</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>36</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>47</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>54</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>55</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>40</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>41</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>44</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>46</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>49</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>50</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>21</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Student Number</td>
<td>Christ's Haven</td>
<td>Keller</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>Number of Choices Received</td>
<td>Quartile</td>
</tr>
<tr>
<td>25</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>26</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>27</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>28</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>32</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>39</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>43</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>48</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>51</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>56</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>57</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>58</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>59</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>16</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>22</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>23</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>29</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Student Number</td>
<td>Christ's Haven</td>
<td>Keller</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>Number of Choices Received</td>
<td>Quartile</td>
</tr>
<tr>
<td>33</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>20</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>34</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>53</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>31</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>45</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>35</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>38</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>42</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>52</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>30</td>
<td>10</td>
<td>4</td>
</tr>
</tbody>
</table>
however, in school they received four and six choices respectively which places them in the second and third quartiles. Student number 12 received nine choices in the home, and seven choices at school. This number of choices places her in the fourth quartile at the home and the third quartile at school. There were nine other students who received seven choices at the home administration of the questionnaire; of these nine students, only two maintained their status in the fourth quartile at school—numbers 1 and 10. Two other students were only one quartile different in the two situations, numbers 11 and 14. Of all the fourteen students in quartile four at the home, seven of them—numbers 1, 10, 11, 12, 14, 30, and 45—vary so little as one quartile. The other seven vary two or more quartiles. Those students in the first quartile at the home tend to remain in the first quartile at school. Only four vary as much as one quartile, numbers 6, 37, 44, and 50; number 50 varies two quartiles.

Of the five individuals—numbers 4, 31, 35, 42, and 52—who varied as much as three quartiles on criterion III from population to population, all were more highly chosen in the home than in the school. Three of these students varied rather drastically on the other two criteria as well. Again, all three were more highly chosen in the home than in the school. Student number 35 varied two quartiles on criterion I, and differed by three quartiles on both criteria II and III.
Number 42 also varied two quartiles on the criterion of best friends and three quartiles on the other two criteria. Individual number 52 was found to be in quartiles which varied three in choice of best friends; criterion II had a variance of two quartiles; and the final criterion had a variance of three quartiles.
CHAPTER IV

RESULTS AND CONCLUSIONS

Fifty-nine children who are residents of Christ's Haven for Children, a Church of Christ supported orphanage for children of school age, were administered a sociometric questionnaire in two unique populations. By a quartile comparison of the choices received from the children at school and at home, it was felt that the constancy of sociometric position in different populations could be ascertained.

Results

Out of a combined total of 177 possible combinations of quartile variation, 57 or approximately 32 per cent remained stable within the same quartile from one population to the other. Approximately 35 per cent of sixty-three of the possible combinations varied as much as one quartile. Forty-one combinations varied two quartiles; this is approximately 23 per cent. Of the combinations that varied three quartiles, there is found only sixteen or 10 per cent. This would indicate 63 per cent or the majority of individuals residing in a particular sociometric position maintained this position in a different population, if a variation as small as one quartile is considered an indication of stability.
On an individual basis, it is found that five children from Christ's Haven varied as much as a combined total quartile variation of seven. This total of seven is a result of combining the quartile variation on each of the three criteria of the questionnaire. The highest possible combined quartile variation is nine. For an individual to have a total variation score of seven, he must have had at least a three quartile variation on one criteria and at least a two quartile variation on the remaining criteria. It was felt that this level of variation would be an indication of significant difference in sociometric status.

On the basis of the quartile tabulation of each child from Christ's Haven on all three criteria, there was a total of fifteen students within the fourth quartile at the home who maintained a similar status at school. These fifteen had a variance of no greater than one quartile. This is approximately 30 per cent of all the individuals within quartile four.

Of the Christ's Haven students within the first quartile of the three combined criteria, forty-eight out of the fifty-one students remained within the first quartile in both populations. This is approximately 94 per cent of the students.

This extremely high per cent of stability among the children residing in the first quartile would seem to indicate that the qualities and traits which cause an individual to receive few choices in one population will also be present and restrict his sociometric position in a different population.
The fact that only 30 per cent of the children residing in the fourth quartile maintained a similar position in the other population would seem to indicate that the qualities and traits desirable in one population are not necessarily the qualities and traits needed to occupy a highly chosen sociometric position in another population. Each population has its own set of unique requirements for a highly chosen position among its members. The interaction theory mentioned in Chapter I would seem to serve as an explanation of the differing of position among highly chosen individuals from one population to another population.

Conclusions

Based upon the results of the investigation, it was felt that the following conclusions could be drawn:

1. The majority of individuals will maintain a very similar sociometric position from population to another population.

2. On the basis of the information of the investigation, it is not ascertainable whether an individual occupying a highly chosen sociometric position in one population will maintain a similarly high position in another population. It may be indicated by other trends of the investigation that certain factors such as previous family history, background, and other situations unique to the children from an orphan's
home, place these students at a disadvantage socially. Only further investigation could bear out such assumption.

3. Individuals occupying a low sociometric position in one population will maintain a similarly low position in another population.

4. A small percentage of individuals will occupy a very different sociometric position from one population to another population.
APPENDIX A

NAME ________________________________

1. Who are your best friends here in school?

2. Who would you most like to work on a project with here in school?

3. Who would you want to remain in this room with you if some were to be moved to another room?
APPENDIX B

NAME

1. Who are your best friends here at Christ's Haven?

2. Who would you like to do work chores with the most?

3. Who would you want to remain in this cottage with you if some were to be moved to another cottage?
BIBLIOGRAPHY

Articles


Bonney, Merl E., "The Constancy of Sociometric Scores and Their Relationship to Teacher Judgment of Social Success and Personality Self-Ratings," *Sociometry*, VI (1943), 409-416.


Gronlund, N. E., "The Accuracy of Teachers' Judgments Concerning the Sociometric Status of Sixth Grade Pupils," *Sociometry*, XIII (1945), 197.


*Sociometry*, Published Quarterly by Beacon House, Inc.

Unpublished Materials
