THE RELATIONSHIP BETWEEN ORGANISMIC AGE AND SOCIAL
ACCEPTANCE STATUS OF CHILDREN IN A FOURTH GRADE

by

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INTRODUCTION

The old concept of education, intellectual development, is concerned with only one growth area of the child. The new concept, intellectual, social, physical, and emotional development, is concerned with the growth of the child as a whole. This newer concept is expressed by some authorities as organismic age. With this change in the philosophy of education, came a drastic change in the role of the teacher. Louttit (15, p. 148) describes the ideal teacher:

> The ideal would demand teachers with a command of their subject-matter and pedagogical methods, with a specific knowledge of child development with a lack of personality conflicts within themselves, and with a wholesome objective attitude toward the continuing problems of children.

Dahlke and Monahan (7, p. 223) comment:

> The teacher today, if one judges by the content and number of courses offered by schools of education, should be a high powered technician possessing an imposing assortment of skills and techniques. In addition to his teaching role, the teacher becomes, or is expected to become, something of a counselor, mental-hygienist, occupational adviser, tester, individual and group therapist, social worker, and community worker, all in one.

As the role of teacher becomes more and more complex, the classroom teacher needs to be constantly on the alert, and searching for effective methods of studying, understanding, interpreting, and improving human relationships within the classroom. It was anticipated by the writer that this study might contribute to such a purpose.

REVIEW OF LITERATURE

For the purpose of this study the writer was interested in the literature in the fields of social grouping, of organismic age, and the application of these to classroom situations.

Finley (9) made a study of children $2\frac{1}{2}$ to 15 years of age who were enrolled in the Winnetka Public Schools. He emphasizes that one of the most important part of a child's school training is that of learning to get along with and to cooperate in a group. Finley comments about the degree of socialization in the fourth grade:

> It is in the upper third and fourth grades that we begin to see the emergence of a real "we" feeling and group loyalties that enable children to submerge their own interest into those of the group, especially when the teacher takes the lead.

Arranging children into congenial social groups, so that each child feels secure and can experience a real "we" feeling, is a major concern of the classroom teacher. Cologne (6) urges sociometric procedure as a help for teachers in discovering, understanding and arranging the actual natural groupings, and points out real need for studying the interpersonal structure of a group:

> Every human being responds spontaneously to every other human being with whom he comes into face to face contacts. He likes him, or dislikes him, "or can't see him." To develop his emotional expansiveness - that is, to increase the number of persons toward whom he feels warmly and with whom he willingly

co-operates - the human being must first experience
satisfying interpersonal relations by working and
playing with persons whom he likes. If he is con-
stantly forced into relations with persons whom he
dislikes his growth in emotional expansiveness is
exhibited.

Olson (18) relates the sociometric techniques used by
a teacher in the University of Michigan Laboratory School to
improve social relationships in a group of third grade chil-
dren. The group did not show improvement until it was com-
bined with another group. Olson concludes:

> The social relations within a classroom group and
> the role a given child occupies in it have deep roots
> in the community, the family, and in the physical,
> behavioral, emotional and mental differences among the
> children. More studies of the child as a human organ-
> ism in a field of social forces should give surer
> insight and technique to the teacher in his or her role
> as a specialist in interpersonal relationships.

Olson and Hughes have made several studies of the child
as a "human organism in a field of social forces". Since age
units give a comprehensive description of a child's devel-
opment, they have converted many measurements of growth such
as height, weight, dentition, etc. into age values. Olson
and Hughes (21, p. 526) describe organismic age:

> We have coined the term "organismic age" to
> describe a child's center of gravity in general
> maturity. This is obtained simply by taking an
> average of available age values. The larger the
> amount of available data, the more accurate the
> value obtained.

Another study by Olson (19) illustrates the purpose of
computing the organismic age of a child and determining his
status in the group with which he will work and play. This

study gives an account of an investigation to determine the advisability of giving an extra promotion to William. His organismic age was obtained and studied in relationship to his status in the present group and the one to which he would be transferred. A careful analysis showed that William ranked high in practically all ages in his present group. In the group to which he would be transferred, there would be a complete change in his status. He would be the very youngest in chronological age, in the lowest five percent in mental age, zero in dental age, very low in reading age, height age, grip age, and organismic age. He was high in only weight age. With these facts in mind, it was decided that William probably could grow and develop best in his present group. Olson (19, p. 26) calls to our attention:

> In considering the problem of a child in a particular school group, his level of growth is of interest, but it is also important to consider his status as a member of a group of children who carry on certain activities in common.

Techniques which are applicable to the measurement of the social status of a child within a group, and to the arrangement of groups for the improvement of human relationships are always in demand by the classroom teacher. Heise (12) states that:

> Child psychologists, and other specialists may suggest practices and methods but unless they are applicable to group management they are not of maximum assistance to the teacher.

Flotow (10) used the sociometric tests and sociograms

to measure and interpret the social status score of 135 children enrolled in the elementary school at Lenox, Illinois. The isolates outnumbered the populars by more than two to one. This study indicated there is much to be done in improving the social and personal relationships in classrooms. Social maladjustment, Flotow believes, is the most difficult of all school problems to solve, but must be solved by group work if the child is to develop into a happy, satisfied individual. Flotow makes this statement:

> The earlier the attempt is made at improving the child's social relationship, the better are the chances for satisfying and lasting results. It has proved extremely difficult to effect good mutual relationships of maladjusted children in the upper grades.

Nelson (16) also stresses the responsibility of the teacher in helping children develop the ability to make satisfactory social adjustments in the school groups. She offers sociometric tests and sociograms as worthwhile techniques in discovering the social structure of her class, and arranging desirable social groups. Nelson lists the following conditions to be used in arranging group assignments:

> (1) Give the pupil who is unchosen her first choice, (2) Give the pupil her reciprocal choice, even if it is her second or third choice, (3) Give her first choice to any pupil who is chosen but who has not selected anyone who wants to work with her, (4) Give the rejected pupil her first choice if possible, (5) Finally check the placement arrangement to make sure that every girl has at least one of her choices fulfilled.

PURPOSE

The purpose of this study is to determine the relationship between organismic age and social acceptance status of children in a fourth grade. It is the hope of the writer that the evaluation and analysis of the data obtained will contribute to a better understanding of children's stage and process of development, will aid in providing an insight into the social development of children, and will help in understanding, interpreting, and improving human relationships within the classroom.

PROCEDURE

Sources of Data

The subjects of this study were 28 children who were enrolled in a fourth grade class in an elementary school. This school, located in a midwestern town of 20,000 population, contained two sections of each grade from kindergarten to the sixth grade. There were 11 boys and 17 girls in the class, ranging in chronological age from 10 years and 10 months to eight years and nine months with a median of nine years and five months. The case numbers used to designate members of the group are 1 to 11 for boys and 12 to 28 for girls.

To indicate the family economic and social status of the children in this group their fathers' occupations were classified into five grades as suggested by Beckman (1). These data are shown in Table 1. The fathers' occupations ranged from unskilled manual labor to professional. Eighty-three percent of the fathers were employed in unskilled, semi-skilled, and skilled occupations; whereas only 17 per-cent were in the professional and business positions.

Table 1. Occupational classification of fathers.

Grades of occupations (According to Beckman)	Number of fathers engaged
I Unskilled manual occupations	8
II Semi-skilled occupations	2
III (a) Skilled manual occupations	9
(b) Skilled white collar occupations	4
IV (a) Sub-professional occupations	0
(b) Business occupations	1
(c) Minor supervisory occupations	0
V (a) Professional (Linguistic) occupations	3
(b) Professional (Scientific) occupations	1
(c) Managerial and executive occupations	0

All the data for this study were obtained by the writer during the first semester of the school year 1949-50. Since the writer was also the classroom teacher of the 28 children in this study, it was possible for her to administer the tests, and take the measurement at those times when 100 per-

cent were in attendance. The 28 children who were enrolled on the first day of school remained throughout the time of the study. There were no children added to the group during this period. These facts are important because a change in the group structure would not have made possible a complete testing program for each child, or a comparable social status score in each of the three situations.

Organismic Age

Data for the computation of the organismic age of each child included the following:

1. Chronological age of each child was figured from the birth date recorded on the school records.

2. Achievement age for each child was based on scores from the "Stanford Achievement Tests" in the following subjects: reading, English, spelling, arithmetic, social science, and science. The achievement score in each subject was converted by a standard scale into age value. These age values were averaged to obtain the achievement age.

3. Mental age was derived from the scores on "The Henmon Nelson Test of Mental Ability". Permission was given to the writer to administer this test two years in advance of the school testing program.

4. Physical age of each child was based on measurements of height, weight, and dentitions. These were all taken by

the writer. During the periodic examination by the school dentist, the writer with the assistance of the dentist, counted the permanent teeth of each child. The above data were translated from tables prepared by Olson and Hughes (20) into age values for each measurement taken. These age values were averaged to obtain the physical age.

The organismic age of each child was computed by averaging the following ages: chronological, achievement, mental, and physical.

Social Status

Data for the social status score of each child were obtained by means of three sociometric tests. In preparation for the tests each child learned the names, and how to spell them, of all the children in the group. To help them become acquainted group activities such as: class discussions, trips to the city library, and educational shows were planned by the teacher.

The criteria of choice for the sociometric tests were: library study, class movie, and room seatmate. These criteria of choices were selected so that each child would be given an opportunity to state his choice of classmates for three types of situations: activity in the classroom (seating); class activity in a free situation (library); and a social situation in the class group (movie).

Each sociometric test was administered according to the following principles:

1. The tests were worded in specific terms so that each child definitely knew he was making three actual choices for a real and immediate situation. The questions used for the tests were: Whom would you choose for a room seatmate: Whom would you choose to study with at the library? Whom would you choose to accompany you to the next school show?

2. Each child was allowed to make three positive choices for each test.

3. The children were told they would receive at least one of their choices, and were assured of complete secrecy in regard to their choices.

4. Each test was given a few days before the social situation occurred. The children were told that the results of the test would be put into effect at a definite time.

The choices from the sociometric tests were tabulated to form the basis for the sociograms. A sociogram for each activity was constructed by using four concentric circles of equal area. The sociogram was divided in the middle and choices for boys indicated on one side and for girls on the other. The following formula proposed by Bronfenbrenner (5) for placing children in the circles was used: inside circle, those children who received seven plus choices; second circle, those who received four, five, and six choices; third circle, those who received three, two, and one; fourth circle,

those who received no choices.

The sociogram was surveyed to find: mutual choices, isolates, neglectees, populars, stars, cliques, and group cleavage.

For the seating arrangement in each social situation, the principles listed below were followed:

1. Each child was given at least one of his choices.

2. Mutual choices were given every time possible.

3. The individuals not chosen were given their first choice.

The choices from the sociometric tests which each child received in each activity were totaled. This total number of the choices received by each child is considered the child's social status score.

Relationship of Social Status to Organismic Age

To determine the relationship between the social status score and the organismic age of the 28 children in this study, the social status score was correlated with the following: chronological age, physical age, achievement age, mental age, and organismic age. These correlations were computed at the Kansas State Statistical Laboratory.

DISCUSSION OF DATA

Organismic Age

The organismic age of each child was computed by averaging the following ages: chronological, achievement, mental, and physical. These ages are shown in Table 2.

These measurements shown in Table 2 were studied by the writer in order to gain a better understanding of each child's stage and process of development, and to aid in understanding each child's achievement age.

Olson (14, p. 178) states:

> Achievement in school is a function of the total growth of the child. Such a generalization comes as a shock at first thought to persons who have thought of achievement in school as primarily a matter of curriculum and method.

Of the 28 children, the child with the highest mental age, and the one with the lowest mental age were selected as examples to illustrate the value of the organismic age in helping a teacher determine what should be expected of a child in school performance.

Table 2. Record of the developmental ages for each individual child stated in years and months.

Child No.	Sex	C.A.	H.A.	W.A.	D.A.	P.A.	R.A.	F.A.	Sp.A.	Ar.A	S.S.A.	S.A.	A.A.	M.A.	O.A.
# 1	B	9- 8	9- 5	9- 6	8-11	9- 3	8- 3	8- 6	7- 9	8- 4	9- 2	8- 1	8- 4	9- 0	9- 1
# 2	B	10- 8	10-11	12- 5	11- 4	11- 7	8- 6	8- 1	7- 8	7-11	9- 1	7-10	8- 2	8-10	9-10
# 3	B	9-11	10- 7	11- 1	10- 5	10- 8	10- 6	12- 5	8- 9	8- 8	10- 2	11- 5	10- 1	13- 4	11- 0
# 4	B	9- 8	9- 4	8- 6	8-11	8-11	8- 1	8- 7	7- 9	9- 0	9- 1	9- 5	8- 7	10- 7	9- 5
# 5	B	9- 8	9- 2	10- 1	9-10	9- 8	8- 9	8- 9	9- 5	8-11	9- 1	9- 5	9- 1	10- 7	9- 9
# 6	B	9- 4	7- 7	8-10	8-11	8- 5	8- 4	8- 6	7- 9	8- 0	8- 6	8- 6	8- 3	7-10	8- 5
# 7	B	8-11	8-10	10- 0	8- 0	8-11	9- 9	11- 0	10- 5	8- 9	10- 5	10- 3	10- 0	13- 0	10- 2
# 8	B	9- 4	10- 1	10- 1	8-11	9- 8	10- 0	10- 6	9- 8	8- 8	10- 0	10- 6	9-11	11-10	10- 2
# 9	B	10-10	10- 3	10- 4	10- 7	10- 5	8- 8	9- 2	8- 0	8- 9	8- 4	9- 0	8- 8	10- 3	10- 0
#10	B	9- 5	10- 3	11- 6	9-10	10- 6	8- 5	8-11	8- 4	8- 3	8- 8	8- 3	8- 5	9- 3	9- 5
#11	B	9- 1	10- 6	10- 0	10- 5	10- 4	8- 7	8- 8	7-11	8- 5	8-11	8- 6	8- 6	9- 6	9- 4
#12	G	9- 5	9- 2	8- 7	10- 5	9- 5	8- 5	9- 7	7-11	8- 8	8-11	8- 9	8- 8	9- 6	9- 3
#13	G	9- 4	10- 6	10-10	8-11	10- 1	9- 3	9- 8	9- 5	8- 6	8- 8	10- 0	9- 3	9- 5	9- 6
#14	G	9- 5	10- 0	9- 5	9- 5	9- 7	8- 8	8- 9	8- 6	8- 2	8- 4	9-11	8- 8	9-11	9- 5
#15	G	8-11	9- 6	10- 2	8-11	9- 6	10- 6	10- 0	8- 7	8- 2	9- 9	11- 3	9- 8	11- 1	9- 9
#16	G	8- 9	9- 5	9- 3	8- 5	9- 2	9- 8	10- 0	8- 7	8- 9	9- 2	9- 8	9- 3	11-11	9- 9
#17	G	9- 4	12- 2	11- 6	8-11	10-10	9- 5	9- 6	9- 9	8- 6	9- 6	9- 7	9- 3	11- 3	10- 2
#18	G	10- 5	9- 9	9- 0	11- 4	10- 0	9- 0	8-11	9- 3	8- 4	9- 0	9- 8	9- 0	9- 9	9- 9
#19	G	9- 6	9-11	10- 4	8-11	9- 9	8-11	9- 5	8- 2	8- 4	8- 8	10- 0	8-11	10- 4	9- 7
#20	G	9- 3	9- 2	9- 1	8- 0	8- 9	9- 0	9- 6	9- 8	8- 4	9- 0	7-11	8-11	9- 6	9- 1
#21	G	9- 5	10- 6	9- 4	10- 2	10- 0	9- 8	11- 5	9- 0	8- 4	9- 6	10- 3	9- 8	11- 5	10- 1
#22	G	9- 3	9- 6	10- 5	9-10	9-11	9- 7	9- 7	8- 8	8- 9	9- 2	10- 6	9- 5	10- 2	9- 8
#23	G	9- 4	9- 7	10- 2	10- 2	10- 0	9- 7	9- 8	8- 7	8- 9	9- 1	9- 1	9- 2	10- 3	9- 8
#24	G	9- 9	7-11	9- 6	8-11	8- 9	8- 4	9- 5	7- 9	8- 0	8- 7	8- 3	8- 4	9- 9	9- 2
#25	G	9- 6	13- 1	19- 2	12- 2	14-10	9- 1	10- 3	8- 8	8- 8	9-11	9- 9	9- 5	11- 4	11- 3
#26	G	9- 0	7- 0	9- 0	8- 0	8- 0	10- 0	11- 3	11-10	9- 0	10- 3	10- 3	10- 5	11- 3	9- 8
#27	G	9-10	8- 6	9- 8	10-11	9- 8	9- 2	10- 3	8- 3	9- 0	9- 9	9-11	9- 5	11-5	10- 1
#28	G	9- 7	11- 7	12- 3	10- 5	11- 5	12- 0	12- 5	9- 8	9- 0	10- 5	12-10	11- 0	12- 4	11- 1

It is interesting to note that child #6, who has the lowest mental age in the group, shows an achievement age superior by five months to his mental age. Comparing his chronological age (9-4) to his other ages he was inferior by 11 months in physical age, by 13 months in achievement age, and by 18 months in mental age. Comparing his mental age (7-10) to his other ages, he is superior by 18 months in chronological age, by 7 months in physical age, and by 5 months in achievement age. In view of these findings, it would seem to the writer questionable to use either chronological age or mental age as primary factors in determining the achievement expectancy for the child.

It would seem of greater value to consider the child's total development, expressed in this study as organismic age, as a basis for determining his achievement expectancy. When such a comparison is made, child #6 is equal in physical age, 2 months lower in achievement age, 7 months lower in mental age, but 11 months higher in chronological age than his organismic age (8-5). These data are shown in Table 3.

Table 3. Developmental ages of child #6.

Measurement	C.A.:	P.A. :	A.A. :	M.A. :	O.A.
Mental age (7-10)	+18	+ 7	+ 5		+ 7
Chronological age (9-4)		-11	-13	-18	-11
Organismic age (8-5)	+11	equal	- 2	- 7	

Child #3 is another example of a child whose level of achievement is better understood in terms of total development. This boy had the highest mental age of the group, yet his achievement age was 39 months lower.

Comparing his chronological age (9-11) to his other ages, he was superior by 9 months in physical age, by 2 months in achievement age, and by 41 months in mental age. Comparing his mental age (13-4) to his other ages, he was inferior by 41 months in chronological age, by 32 months in physical age, and by 39 months in achievement age. Comparing his organismic (11-0) age to his other ages, he was inferior by 13 months in chronological age, by 4 months in physical age, and by 11 months in achievement age. He was superior by 28 months in mental age. These data are shown in Table 4.

Table 4. Developmental ages of child #3.

Measurement	C.A.:	P.A. :	A.A. :	M.A. :	O.A.
Mental age (13-4)	-41	-32	-39		-28
Chronological age (9-11)		+ 9	+ 2	+41	+13
Organismic age (11-0)	-13	- 4	-11	+28	

In view of the data shown in Table 4, it seems to the writer that more recognition should be given to the low chronological age and physical age than to the high mental

age in considering what should be expected of child #3 in school performance.

The findings obtained from the studies of the developmental ages of #3 and #6 appear to support the theory that any one measure of ability used alone has limited value in predicting expectancy in the general performance of a child. They do, however, in the opinion of the writer contribute to the theory that the general performance expectancy of a child can best be determined by studying all measures in relation to the total development.

Table 5 gives a summary of the ages of the group showing the range of ages as well as the high, low, and median ages in each area of growth. These data show that the median in achievement age is below the medians of all the other ages measured. By comparing the median in organismic age (9-9) with the medians of the other ages measured, it may be noted that the class were inferior by 1 month in physical age, by 4 months in chronological age, and by 7 months in achievement age, but superior by 7 months in mental age. From the above data it would appear that the class were not achieving at a level equal to their functioning ability.

Further investigation to throw light on the cause of the failure of the class to show achievement abilities equal to the functioning abilities led the investigator to make a study of the range in ages. Table 5 shows the greatest range

occurred in the physical ages with a difference of 82 months. The range in mental age was second with 66 months. The smallest difference, 25 months, was found in the area of chronological age. This is a reflection of school policy of grade classification on basis of chronological age. Achievement ages and organismic ages have the same range of 34 months.

Table 5. Summary of the developmental ages of the group.

Area measured	Range	Median	Low	High
Chronological	2- 1	9-5	8- 9	10-10
Physical	6-10	9-8	8- 0	14-10
Height	6- 1	9-8	7- 0	13- 1
Weight	10- 8	10-1	8- 6	19- 2
Dental	4-12	9-7	8- 0	12-12
Achievement	2-10	9-2	8- 2	11- 0
Reading	3- 9	9-1	8- 3	12- 0
English	4- 4	9-7	8- 1	12- 5
Spelling	4- 2	8-7	7- 8	11-10
Arithmetic	1- 1	8-7	7-11	9- 0
Soc. studies	2- 1	9-1	8- 4	10- 5
Science	5- 0	9-8	7-10	12-10
Mental	5- 6	10-4	7-10	13- 4
Organismic	2-10	9-9	8- 5	11- 3

Thus it may be noted that there is a wide range in mental ages in contrast to a small range in achievement ages. Child #6, who has the lowest mental age, shows an achievement age 5 months above his mental age; whereas child #3, who has the highest mental age, shows an achievement age of 39 months below his mental age. These facts have led the investigator to question whether the teachers spent too much time helping children of low ability, and thus did not allow enough time for enrichment activities which challenged children of high ability.

Social Status

The data for the social status score of each child were obtained by means of three sociometric tests which were given one week apart. Each child was allowed to make three choices for each test. The criteria of choices were classroom seatmate, library study, and class movies. The choices were tabulated. Table 6 shows the number of choices which each child received for each activity and his total score. From these data a sociogram for each activity was constructed.

Table 6. Sociometric test data

| Child:	Sex :	Seatmate :	Library :	Show :	Social status score
#1	B	0	0	0	0
#2	B	3	2	2	7
#3	B	3	7	6	16
#4	B	3	2	1	6
#5	B	5	4	4	13
#6	B	2	2	1	5
#7	B	4	2	1	7
#8	B	6	5	6	17
#9	B	3	4	4	11
#10	B	1	4	5	10
#11	B	1	1	1	3
#12	G	3	3	3	9
#13	G	2	4	2	8
#14	G	1	1	2	4
#15	G	4	4	6	14
#16	G	1	1	1	3
#17	G	11	8	8	27
#18	G	2	0	0	2
#19	G	3	1	3	7
#20	G	3	2	3	8
#21	G	1	2	2	5
#22	G	3	3	3	9
#23	G	6	4	3	13
#24	G	4	2	5	11
#25	G	1	3	2	6
#26	G	2	5	4	11
#27	G	3	4	3	10
#28	G	2	4	3	9

BOYS ○
GIRLS □
MUTUAL ————
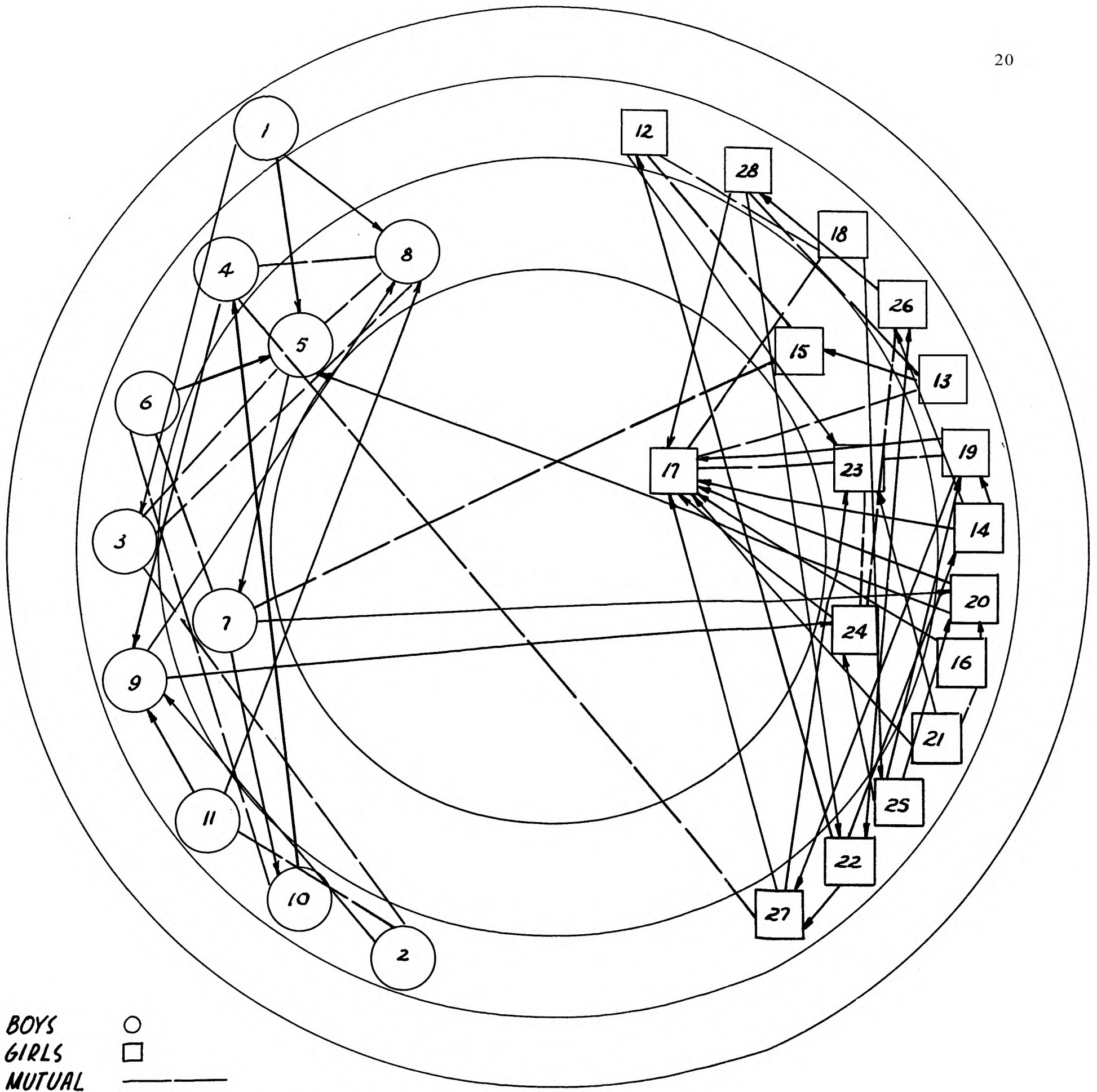
SOCIOGRAM I CHOICES FOR A SEATMATE

Sociogram I was constructed to show the social position of each child as determined by the number of times he was chosen for seatmate. Of 28 children, #17, who received 11 choices, was the only star. Six children, who received more than three but less than seven choices, were classed as populars. Twenty of the group, or 72 percent, received less than four choices which placed them in the area designated as neglectees. Child #1 was the only one who received no choices which placed him in the area known as an isolate.

There were 21 mutual choices. Ten of these were "girl-girl" choices; whereas nine were "boy-boy", and only two were "boy-girl" choices. The two mutual "boy-girl" choices may have been influenced by geographical factors. One pair, #4 and #27, lived on adjoining farms and came to school on the same bus. The other pair, #7 and #15, lived in the same block, came to school together, and played in the same group after school hours. These data are shown in Table 7.

BOYS ○
GIRLS □
MUTUAL ────
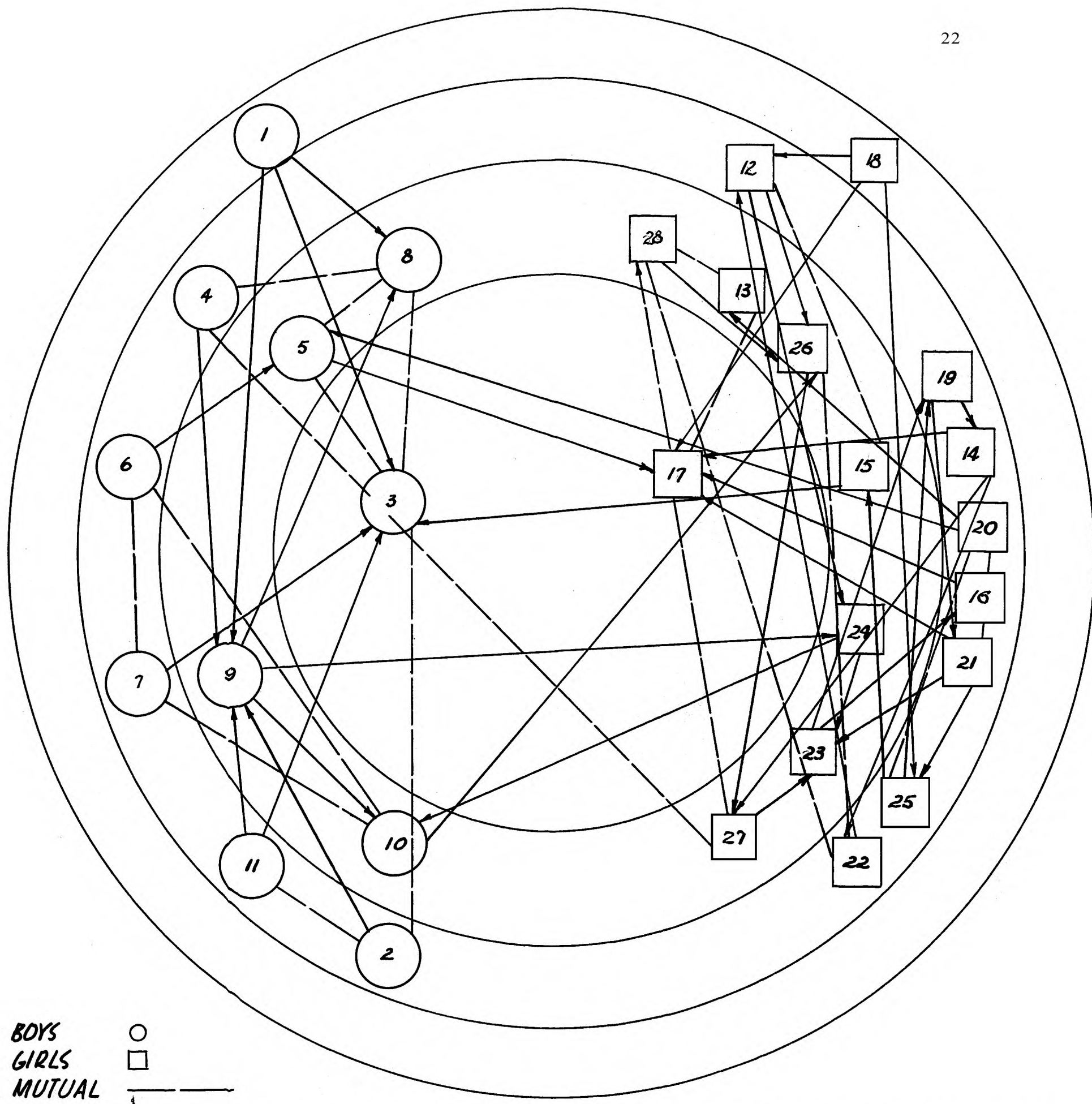
SOCIOGRAM II   CHOICES FOR A PARTNER AT LIBRARY STUDY

Sociogram II shows the social position of each child based on the choices received by each one for library study. In this situation, there were 2 stars, 11 populars, 13 neglectees, and 2 isolates.

The mutual choices totaled 19. Nine of these were "girl-girl", and an equal number were "boy-boy". There was one "boy-girl" mutual choice, pair #4 and #27. These two children were also mutual choices for seatmate. These data are shown in Table 7.
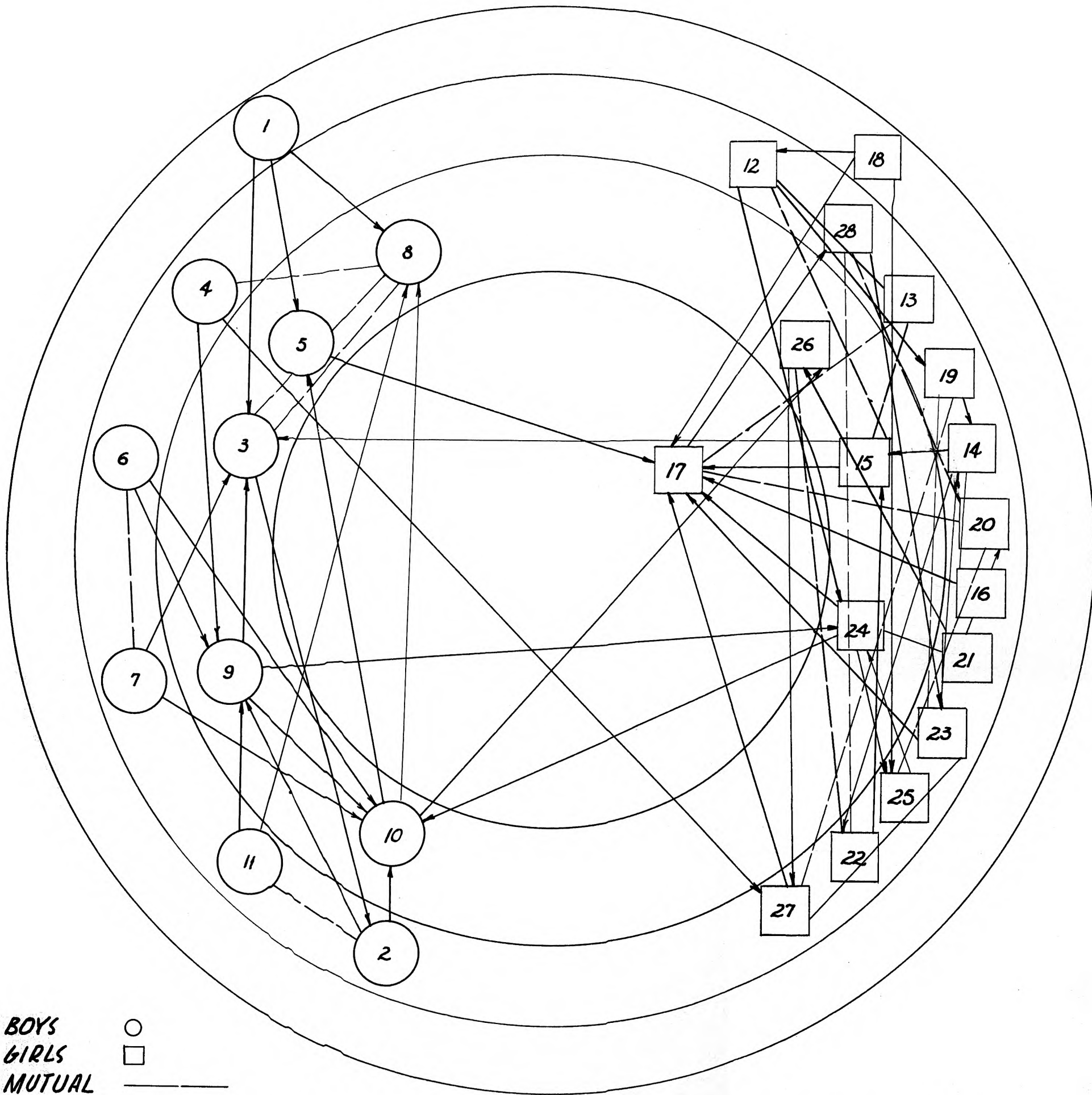
SOCIOGRAM III   CHOICES FOR A PARTNER AT THE SHOW

BOYS   ○
GIRLS   □
MUTUAL   ———

The results of the sociometric test for choices of partners to the show are shown in Sociogram III. A survey of this sociogram revealed 1 star, 8 populars, 17 neglectees, and 2 isolates.

Mutual choices totaled 18, twelve of which were "girl-girl", and six were "boy-boy" choices. Sociogram III is the only one that shows no "boy-girl" mutual choices. However, there were six inter-sex choices; #4 and #27 were mutual "boy-girl" choices in the first and second situations, but in the third situation the boy #4 chose the girl #27 who did not reciprocate. Boy #9 chose girl #24 in the first, second and third situations, but she did not reciprocate in any situation.

Girl #17 has rated the star position on every sociogram. She has shared it only once with #3 on Sociogram II.

Table 7. Summary of data on Sociograms I, II, III.

Socio-gram	Situation	No. of children in each position				No. of mutual choices			
		Star	Popular	Neglectee	Isolate	B-G	B-B	G-G	Total
I	Seatmate	1	6	20	1	2	9	10	21
II	Library	2	11	13	2	1	9	9	19
III	Show	1	8	17	2	0	6	12	18

Table 7 shows a noted sex cleavage in which boys chose boys, and girls chose girls. A few inter-sex choices appeared in each situation. The activity involved in each situation was not apparently a major factor in the total picture of the choices for the group. There were, however, some individual cases which seemed to reflect the influence of the type of activity in making the choices.

A three member clique, consisting of boys #3, #5, #8, appeared on the three sociograms. It may be noted that #5 and #8 of the clique held popular positions on every sociogram and #3 of the clique was the only one of the total group of 28 children who changed positions on each sociogram. These changes are interesting when considered in relation to certain of his behavior characteristics. In the classroom, he was a constant talker and inclined to disturb those near him. Hence, as a seatmate, he fell into a neglectee position. As a co-worker at the library, he rated a star position due to his high reading ability and willingness to share his knowledge of enjoyable books. His record shows that he has the highest mental age of the group, and is exceeded in reading age by only one other child. As a companion for the show, he held a popular position. In the show situation his constant talking did not hinder his ability to be an enjoyable, interesting companion, neither did his reading ability or high mental age rate him a star as in the library situation.

Further study of the strong attraction existing within this clique revealed that the three members had been classmates since kindergarten days; were members of Cub Scouts; and had many common interests. A case study of each child's family background disclosed extreme differences in the educational level of the parents, and of social-economic status. Yet looming above all these extreme differences noted in their parents was one common factor: a like philosophy of parent-child relationship in regard to granting freedom. The children in this three member clique enjoyed freedom to think and to do in degrees unknown to most children of their age. Such freedom is perhaps the key to the strong attraction existing within the clique. This is in agreement with the findings reported by Flotow (10) in regard to home influence:

> The home environment of the child is a vital factor in the establishment of satisfactory social relationships in school. In this study all indications seemed to point to the fact that personal relations within the home were more important than were the social and the economic status of the family.

Olson (18) reported that children in isolate positions were dissatisfied with their status. Nelson (16) stated that children not chosen usually chose as their first choice the most popular child in the group. In this study the writer noted findings to support the above statements. Boy #1 in the isolate position on each of the sociograms chose #3, #5, and #8 as his choices in the first and second situations. These boys, whom #1 chose, composed the clique discussed in

the preceding paragraph, and were the most popular boys in the group. In the third situation #1 chose #8 and #3. Likewise, girl #18, in the isolate position on two sociograms, and in the neglectee position on the third, chose #17, the girl who rated the star position in each situation. These factors are significant in illustrating how the unpopular children in the group strive to be associated with the more popular.

Sociograms I, II, and III were studied to determine which children maintained similar positions in the various situations. The analysis revealed the following findings for all three situations: 1 in the star position, 3 in the popular position, 12 in the neglectee position, 1 in the isolate position, and 11 shifted positions.

To interpret the social structure of the group, their social status scores, Table 6, were studied. Of 28 children, there were 1 star, 8 populars, 18 neglectees, and 1 isolate. The neglectees and the isolate far out numbered the star and the populars. This fact suggests that there is much work to be done in improving the social status of this group.

Bonney (4) reported that the social status of children remained constant for the five year period of his study. In the same report, however, he commented that the social status of children can be improved by wise guidance over a period of time.

Relationship of Social Status to Organismic Age

To determine the relationship between the social status score and the organismic age of the 28 children in this study, the correlations shown in Table 8 were computed.

Table 8. Summary of coefficients of correlations.

Variables	Coefficients of correlation	
	Simple	Multiple
Social status score and chronological age	-0.07	
Social status score and physical age	+0.14	
Social status score and achievement age	+0.35*	
Social status score and mental age	+0.37*	
Social status score and organismic age	+0.37*	
Social status score and all other variables		.49*

* = statistically significant.

Table 8 shows positive coefficients of correlations between social status score and all variables, except chronological age which shows a negative coefficient of correlation.

Garrett (11) states:

Coefficients of correlation range over a scale which extends from -1.00 through .00 to 1.00. A positive correlation indicates that large amounts of the one variable tend to accompany large amounts of the other; a negative correlation indicates that small amounts of the one variable tend to accompany large amounts of the other.

Table 8 shows a weak positive correlation of 0.37 between social status score and mental age. Bonney (3) and Flotow (10) have reported findings regarding correlations between intelligence quotients and social status scores. Bonney's study shows a correlation of +0.34 between intelligence quotients and various degrees of mutual attraction of children in the second and third grades. Flotow's study reports a close relationship between intelligence and social status scores of children in the eighth grade.

Table 8 also shows a positive correlation of 0.35 between social status score and achievement age. This correlation is slightly lower, by .02 point, than the correlation of social status score and mental age. Bonney's study (2) shows a similar finding. He studied 500 children in grades two to seven for five consecutive years. Bonney reported:

> There is just a shade of evidence that the intelligence test results were a little more closely related to the process of friendship formation than were the academic achievement results.

In the opinion of the writer, the most outstanding fact established by the data of Table 8 is that a positive correlation of 0.37 exists between organismic age and social status score. This correlation indicates that in this study mental age, achievement age, physical age, and chronological age function, not as separate factors, but as a whole in determining a child's social status score. This finding implies that a child's social development is closely related

to his total development. In other words, it may be assumed that a child high in organismic age may be high in social status score. According to the data of Table 8, a child can hold the star position regardless of the fact that he is not one of the highest of the group in mental age. Other developmental ages give an equal chance to the child who is not high in mental age, since all measurements carry proportional weight in computing organismic age.

Girl #17, a star, and boy #7, a neglectee, are examples of children who have equal organismic age, but differ in the component developmental ages used in determining the organismic age.

Table 9. Two children with equal organismic ages.

Variables	:	Child #17	:	Child #7
Chronological age		9- 4		8-11
Physical age		10-10		8-11
Achievement age		9- 3		10- 0
Mental age		11- 3		13- 0
Organismic age		10- 2		10- 2
Social status score		27		7

Child #7, Table 9, showing a high mental age and achievement age ranks low in social status score. Thus, mental age and achievement age are not enough to insure social acceptance in this group; whereas child #17 with a lower mental age and achievement age ranks high in social status score. This child shows the value of compensation in other ages which contribute to her social acceptance in this group of 28 children.

SUMMARY

The computation of the organismic age for each child in this fourth grade group contributed to a better understanding of each child's stage and process of development, and was an aid in determining the general performance expectancy of each child. Table 5 shows a wide range of 66 months in mental ages in contrast to a range of 34 months in achievement age. Achievement ages and organismic ages have the same range of 34 months. The smallest difference, 25 months, was found in the area of chronological age, and the greatest range occurred in physical age with a difference of 82 months. Table 5 also shows that the median in achievement age is below the median of all the other ages measured. From the data in Table 5 it may be questioned if the class were achieving at a level equal to their functioning ability.

A sociometric test seemed for this study to be a dependable technique for measuring each child's social status within a group and for a particular activity. A series of such tests were valuable in determining each child's social status score. The social status scores, Table 6, revealed that for 28 children there were the following: 1 star, 8 populars, 18 neglectees, and 1 isolate. The fact that there were more neglectees than populars suggests the need for improving the social development of this group.

A sociogram pictured effectively the results of each sociometric test; helped in interpreting the social status position of each child; and revealed many clues for the improvement of social relationships within the group.

Sociograms I, II, and III point out that of 28 children, 11 shifted positions and 17 maintained similar positions. These sociograms also illustrate how the unpopular children in the group strive to be associated with the more popular.

Data of correlations, Table 8, show a definite relationship between social status score and organismic age. In view of this finding, it is the opinion of the writer that social status score should be used jointly with organismic age in order to be an effective means of studying and of understanding the whole child, and of helping the child in his social group.

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THE RELATIONSHIP BETWEEN ORGANISMIC AGE AND SOCIAL
ACCEPTANCE STATUS OF CHILDREN IN A FOURTH GRADE

by

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Twenty-eight children in a fourth grade in a midwestern town of 20,000 population were studied to determine the relationship between organismic age and social status score.

The organismic age for each child was computed from 11 developmental ages. Data for the social status score of each child were obtained by means of sociometric tests based on three criteria: classroom seatmate, library study, and school show.

The developmental ages of the group revealed that chronological ages of the children ranged from 8 years and 9 months to 10 years and 10 months with a median of 9 years and 5 months. The median in mental age, 10 years and 4 months, was the highest median; whereas the median in achievement age, 9 years and 2 months, was the lowest median. The median in achievement age was closer by 7 months to the median of organismic age than to mental age. Comparing the median in organismic age (9-9) with the medians of the other ages measured, it may be noted that the class was inferior by one month in physical age, by 4 months in chronological age, and by 7 months in achievement age but was superior by 7 months in mental age.

Studies of the developmental ages of each child contributed to a better understanding of each child's stage and process of development and aided in determining the general performance expectancy of each child. For 85 per cent of the

cases, achievement age was more closely related to organismic age than to mental age.

A series of sociometric tests were valuable in determining each child's social status score. The social status scores for 28 children revealed the following social group structure: 1 star, 8 populars, 18 neglectees, and 1 isolate. That there were more neglectees than populars, suggests the need for improving the social development of this group of children.

Sociograms were used to picture the results of each sociometric test. This was an effective means of interpreting the social status of each child, and revealing clues for the improvement of social relationships within the group. There was a noted sex cleavage on all three sociograms: boys chose boys and girls chose girls. A few inter-sex-choices were also noted on each sociogram. Mutual choices were approximately the same in number of each sociogram. Regardless of the activity, 17 of the 28 children maintained the same position on every sociogram; whereas 11 shifted positions. Therefore, the activity involved in each situation was not apparently a major factor in the total picture of the choices for the group.

The coefficient of correlation between social status score and organismic age was +0.37. This correlation indicates that, in this study, mental age, achievement age,

physical age, and chronological age function not as separate factors, but as a whole in determining a child's social status score. In view of this finding it appears that social status score should be used jointly with organismic age in order to be an effective means of studying and of understanding the whole child, and of helping the child in his social group.