

A SOCIOMETRIC STUDY OF SOCIAL STATUS
AND CHOICE-READINESS IN A NURSERY SCHOOL GROUP

by

MARGARET MARY STEFFEN

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PURPOSE

The interpersonal relationships of individuals have been intensively studied through the use of sociometric techniques. Most of the studies have dealt with the middle childhood through the adult years. Very few of these sociometric studies have been done at the preschool level.

The main purpose of this study was to investigate a child's social status as his nursery school group changed. The factors which might have influenced the constancy or change of his social status were considered. The factor of choice-readiness was, moreover, an interesting aspect of this study. Therefore, it was treated separately in the second part of the paper.

REVIEW OF LITERATURE

Rose Cologne (5) has stated that:

Sociometry is the science of all two way relationships among individuals. It provides a practical way to measure the interpersonal structure of any group; it helps clarify the web of relationships in which we all live every day. Sociometric investigation generally reveals progressively (1) the extent of an individual's acquaintance; (2) his social contacts; (3) those to whom he is attracted and who are attracted to him, those he rejects and who reject him, and those to whom he is indifferent and those who are indifferent to him; (4) his motivations; and finally (5) the interaction of his emotions and the roles he assumes or wants to assume.

The systematic investigation of group structure and the individual's place in it had its origin in Moreno's book, Who Shall Survive (14), first published in 1934. Moreno's basic work was followed by important research on the part of other investigators.

Bonney (1)(2)(3) did extensive work in sociograms on the elementary school level. The mathematics of sociograms was studied by Bronfenbrenner (4). Northway (16) developed the target technique for charting sociograms. This method greatly facilitated the study of individual sociograms.

Jennings (8), besides doing much research in sociograms, helped disseminate information concerning the purposes and uses of sociograms.

When an individual is with others who respond to him and whom he wants to be with, he has greater security. The more secure he is as a person, the more releases he feels and can behave in the group. As he is emotionally freer of tension and doubt and hesitations of different sorts, he can contribute and function better within the total group....

A way of overcoming lacks in security is to bring the natural groupings into play, thus preventing lots of

individuals and lots of potential leadership from being submerged.

Criswell (6) was interested in the change that takes place in a group over a period of time. Working with a group of New York City school children, she constructed two sociograms with a lapse of six weeks between each sociogram. Although there were many changes in choices, she found that there was only a slight alteration in class structure between the sociograms.

Changes in status were also studied at the nursery school level by Kiser (10). Working with a group of nursery school children, she constructed two sociograms over a period of two months. Kiser suggested that for that group of children the social status remained reasonably constant within the group and was influenced more by age and by individual behavior characteristics than by any other factor.

Northway (15) quotes Budden who studied 36 nursery school children for a four month period. Once a month each child was asked his choice of a companion. Eighty-three percent of the names given as first choices remained as first choices throughout the four tests; 78% of the second choices and 74% of the third choices remained in the same position.

Very little has been found in the literature on the changes that might occur in a child's sociometric status if his group were to be altered. This group change might be caused by the addition or removal of one or more children. Bonney (2) studied three groups of children beginning in each case in the second grade and following them through the fifth grade. Various procedures were

tried by the school to raise the social acceptance score of those individuals who had low scores. Bonney found that the general social acceptance score was approximately constant from the second to fifth grade. Intelligence and academic achievement were also found to be constant. Due to pupil turnover, the group was by no means constant.

One practical implication of the foregoing data is that, except in unusual circumstances, there is not much hope that a child (or adult) who is maladjusted in one group will be much better off by changing to another group.

Another practical implication of the data on the constancy of social status is that it is very difficult to change the total impression which a child makes upon his group.

.....On the whole the socially strong stay strong, the average stay average, and the weak stay weak.

With our recent emphasis on human relations, these conclusions should be of concern to educators. An implication might be that change must come from within the individual, and one goal of education is to motivate the individual. Perhaps, children of preschool level have personalities pliable enough that those with a low social status score could be helped to improve their social acceptability.

Since Kiser's study covered only a period of two months, it would be interesting to see if the social status of a preschool group remained constant over a longer period of time, perhaps a year. Olson (17) writes that early childhood is a period of very rapid growth, while by the sixth year growth has begun to slow down. Olson reproduces Scammon's chart of cumulative changes from birth to maturity for four divisions of growth. This chart shows that

approximately ten percent of normal growth occurs between two and four, whereas only three percent occurs between six and eight. It might be concluded that the difference in growth gains between a two and a three year old is greater than that between a seven and an eight year old. Since Bonney's study was conducted on children in the middle years of childhood, we might consider the implications of the slower rate of growth effecting less change.

Moreno (13) conducted a study of a group of nursery school children in order to discern the relationship between a child's actual contacts in a play situation and his expressed verbal choices. By observation, contacts made by the children and their acceptance or rejection were noted. These configurations were compared with verbal choices expressed by the child. The strongest bonds in the actual play situation were the same as for the verbal choices. The ages of the children ranged from 2 years 6 months to 5 years: six were four year olds; four were three year olds; one was five; and the other was two. Two of the children, including the youngest made no verbal choices. Moreno states that

The most that can be concluded from these results appears to be that children having the greatest number of initiated contacts with one child, make the greatest number of choices for this same child in the verbal tests. These children happen to be older. The younger children, having concomitantly less concentrated relationships are rather inconsistent in their verbal choices in comparison with their choices in spontaneous play activity.

The main factor, according to Moreno, that limits sociometric studies at the nursery school level is the inability of the child to make a verbal choice. Language is one of the factors that enter into the ability to make a verbal choice. McCarthy (12) in her

study of the development of children's language discussed the relationship between social status and language facility.

Children who talk very little are often solitary even in a group situation and a spurt in a child's linguistic development sometimes appears to facilitate his social contacts so that a previously solitary child may develop friendships as soon as he begins to talk and make verbal approaches to other children.

The only study found in the literature which deals with the factors in the child's personality contributing to his social status was done by Gregory (7) at the University of Toronto. Gregory found that in a group of fourteen four year olds, children chose companions who in relation to themselves, talked more, contributed more to block construction, took the initiative more often and attempted to control the situation more frequently. The degree to which the chosen exceeded his chooser was, however, slight. Gregory concluded that with preschool children, factors of energy and initiative were important when the children chosen had these qualities in such a degree that they stimulated rather than overpowered or oppressed the chooser.

Joel (9) in 1936 devised a scale for studying the behavior maturity of children. Joel claims superiority for his scale over other scales on the basis of the following points: first, concrete types of behavior instead of abstract traits are noted; second, since definite statements are given, rating is made easier; third, all comparisons with other children are delayed until after the rating. Data for the construction of the scale were collected from 467 subjects from 22 Federal Emergency Nursery Schools and one private nursery school. The chronological age of the subjects

ranged from 20 to 85 months with an average of 47.2 months. The coefficient of correlation between the total weighted score and the chronological age was $.65 \pm .02$. Joel concludes that considering the crude nature of a five point scale, the correlation indicates that the scale is a good measure of behavior maturity.

CHANGE IN SOCIAL STATUS

Method of Procedure

The Kansas State College Nursery School is located in a remodeled three story private home. The first floor contains a large playroom, a medium size playroom, locker room, inspection-bathroom and kitchen. In the large playroom are the piano, rhythm instruments and a large supply of wooden trains and various sized blocks.

The second floor consists of four small playrooms and two small bathrooms with adult size stools and bowls, and a staff office. There is no piano on this floor. The children's lockers are located in the hallway.

The third floor contains the children's resting room, teacher's bathroom and also a classroom-testing room. This floor is not used as a play area by the children.

There are three groups of children enrolled at the nursery school: two morning groups and one afternoon group. The children's ages in the younger morning group range from two to about three and a half years. Since the staff feels that the younger group is the less active of the two groups, and therefore needs less space,

these younger children play on the second floor. Occasionally when the first floor is not in use, the children use that floor. The ages of the children in the older group range from about three and a half to five. These children play on the main floor of the building. Each of the morning groups stays for lunch one half of the semester. Lunch is served in the large playroom on the main floor.

Both groups share in the use of the outdoor play area. One group plays outdoors for the first half of the morning and then the other group plays outdoors during the remainder of the morning. The ages of the children in the afternoon group range from three to five.

The policy of the nursery school is to admit children as soon as possible after their second birthday and to have them remain in nursery school until they are ready for kindergarten. Since for various reasons, many children drop out of nursery school, these vacancies are filled from a waiting list. An attempt is made to have the groups balanced according to the ratio of sexes, types of personalities, age ranges, etc., so that the college students may see an overall picture of the preschool child.

At the beginning of each semester and occasionally between, the composition of each group is studied. Children, who in the opinion of the staff, are thought ready for the older group are placed there. Vacancies are filled from the waiting list. The staff try not to convey to the child or to his parents any significance of importance to this change of group. Due, however, to the physical differences of the two play areas, and perhaps to the child's position in the group (i.e. perhaps he formerly was the

oldest in the group and now he is the youngest), the child has to make many adjustments to his new environment. The effect of this change in group on the social status of three of the six children in this study will be reported.

Six children, two and a half to four years, attending the college nursery school during 1952 were the subjects of the study. Twenty-six additional children were members of the study group for one term only and no analysis of their choices was made. The children were from professional families.

During each semester, every child was given an opportunity to choose those children with whom he would like to go for a walk. These choices were recorded in order as the children made them -- 1, 2 and 3. The word "chooser" is used to indicate the child who is making the choice, and the word "chosen" designates the child or children selected by the "chooser". Situations I and II refer to the first and second time that the child chose his companion for the walk.

In obtaining the sociometric data, the criteria as established by Jennings (8) were followed. Data on choices were gathered at least five weeks after the beginning of each semester and not until it was felt that each child knew all the other children in the group and was familiar with the routine of the nursery school. With four exceptions, choices were only recorded on days when all the children were present. On the charts showing the children's choices an "A" indicates the child was absent that day. Due to absences and to the length of the school term, sociometric data were not always obtained when all the children were in attendance.

The writer was one of the teachers of the group and so it was felt that there was rapport between the questioner and the children. The chooser was taken from the group and told, "We are going for a walk. Whom would you like to take with you?". No more than three choices were recorded and only oral choices were credited. A record of the conversation during the choosing situation was kept. After the child had given his choices, the chooser, the chosen and the writer went for a short walk. If the child made no choices, he was taken for a walk if any interest in it was shown.

After the data of choices were recorded, three sociograms were constructed. The first showed the choice configuration as recorded in the spring term of 1952 and the other two the choice configurations as recorded during the following fall term. The construction was adapted from Northway's "target technique". The quartile scoring position which she used was omitted. The circle was divided vertically in the center to denote choice by sex. The boys are on the right and the girls on the left of the diameter. Each child is indicated by a code number and a coded name. The term "circle position" (CP) indicates each child's position within the four concentric circles. The innermost circle is designated by CP1; the second circle from the center by CP2; the third circle from the center is CP3; and the outer center is CP4 (Fig. 1). A position within the inner circle showed that the individual received seven or more choices. Four, five or six choices placed an individual in CP2. Those who received one, two or three choices were placed in CP3, while those who received no choices were located in CP4. The children whose positions were within CP1 were designated as "stars"

and those children whose positions were within CP₄ were termed "isolates". Arrows were drawn from the chooser to the chosen. A heavy line indicated a mutual choice.

In order to study the conditions and circumstances affecting choice-readiness and to observe the factors in the child's personality which contribute to his social status, additional records were kept. These included the child's chronological age (CA) at the time of choosing and his Intelligence Quotient (IQ) as determined within a year of the period of the study from the administration of the Revised Stanford-Binet Intelligence Test, Form L. The use of mental age was not practical, since the CA of the child at the time of the administration of the intelligence test and at the time of choosing were different. An analysis of fifty consecutive statements of each child was made during each semester according to the pattern established by McCarthy. Table 1 shows data from McCarthy (11) which were the basis of comparison with the subjects of this study. The number of terms in Nursery School was also noted. Attendance at the college nursery summer school was counted as one half a term. Each child's social maturity age was determined by use of the Joel Maturity Scale. The children were jointly rated by their teachers, either after they had left nursery school, or at the conclusion of the study.

A subjective analysis of the possible reasons for the choices may be noted. The main reason for each choice was considered based on either mutual play interest, dominating-leadership or followership. Mutual play interest was the term used to indicate that one child chose the other so that they could both play

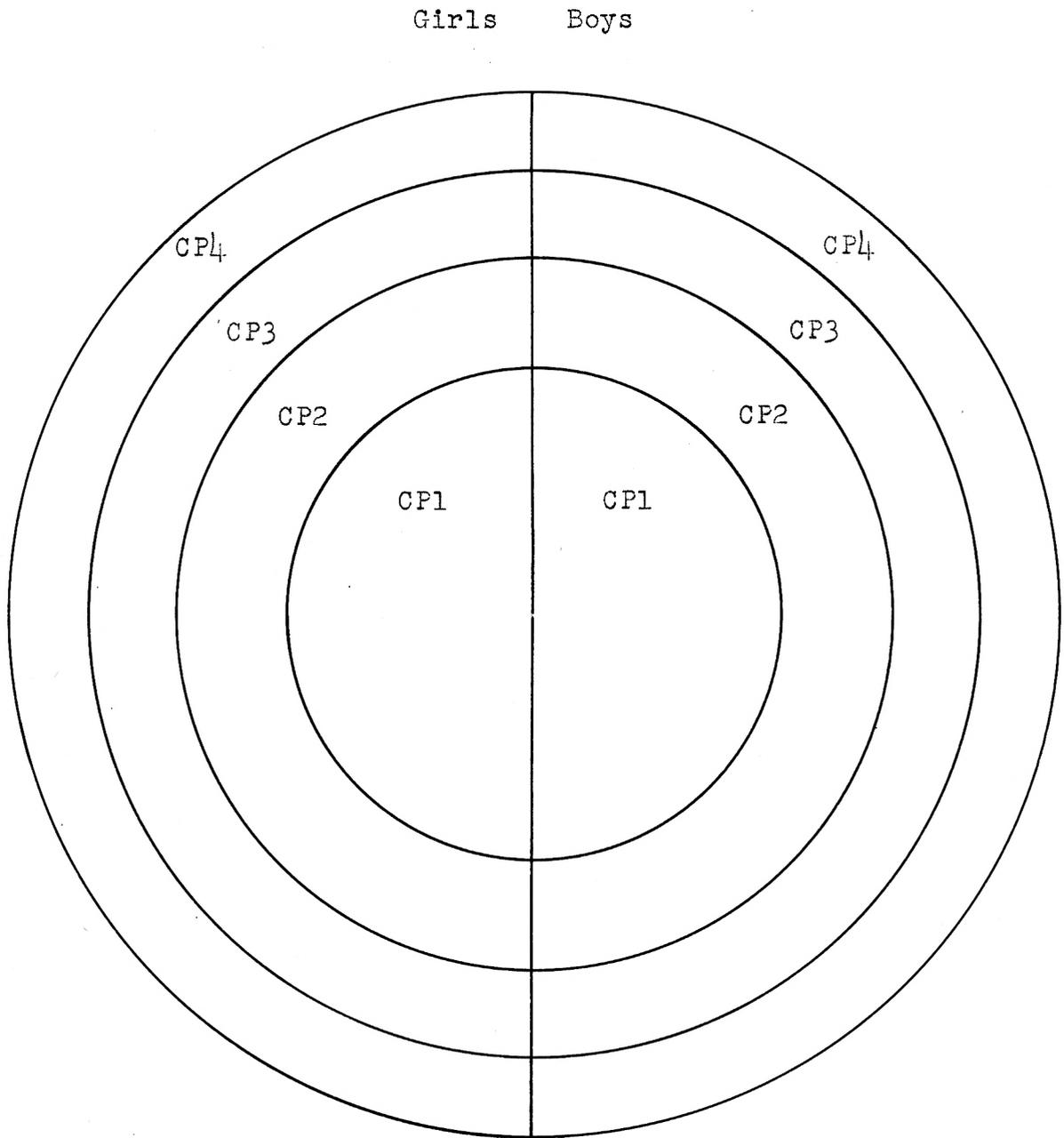


Fig. 1. Sociogram showing circle positions.

Table 1. Some of McCarthy's Findings on Language

CA (months)	Sex	Mean percent of each part of speech:	Number of Different Words	Total Number of Words
		Nouns & Pronouns	Verbs	
24	B	64.3	15.3	46.5
	G	50.0	11.6	60.3
30	B	46.4	21.6	112.9
	G	43.6	18.4	124.6
36	B	44.9	28.6	169.8
	G	40.5	45.2	207.7
42	B	38.2	37.1	173.4
	G	40.3	35.0	181.4
48	B	40.2	48.2	228.7
	G	42.9	42.9	198.4

together, mutually sharing toys and other equipment. The children would alternate between being leader and follower. Dominating-leadership indicated that a child chose another so that the "chooser" would be ordered, or told what to do. The "chosen" initiated all activity and the "chooser" was a ready follower. Followership, on the other hand, indicated that the "chosen" child was to follow the wishes of the "chooser". The "chooser" initiated all activity and did not feel it necessary to ask the "chosen" for play suggestions, etc.

Sociograms pictured these possible explanations. A green line indicated that the chosen child was selected because in most situations he assumed a dominating-leadership role. A red line indicated that in most situations he assumed a followership role. A blue line indicated that in most situations there was mutual play, either on the basis of parallel play interest where there was no leader or on the basis of cooperative play interest where the

leadership role was freely exchanged between chooser and chosen. This subjective analysis was based on the writer's observations of each child over the period of the study.

Discussion and Conclusions

The purpose of this part of the study was to observe the factors which contributed to the child's social position and change of status. Table 1 lists the children in the study and their C. A. Tables 3, 4 and 5 present the choices each child made and received. This information is the basis for the construction of the sociograms.

Table 2. Subjects by C. A.

Subjects	: C.A., Jan. 1, 1952 :
1. Hope Palmer	4-0
2. Harriet Palmer	4-0
3. Michael Allport	3-11
4. William Jacobs	3-10
5. Walter Knox	3-9
6. Sally Jones	3-8
7. Bobby Douglas	3-8
8. Barry Ward	3-7
9. Henry Donnely	3-4
10. Cecelia Patterson	3-3
11. Cleo Smith	3-2
12. Mary Burke	3-1
13. Hugh Wallace	3-0
14. Jane Collins	3-0
15. Sandra Jenkins	2-10
16. John Davidson	2-8
17. Hilda Scott	2-7
18. Lorraine Murphy	2-6
19. Margie Simon	2-3
20. Brian Cooper	2-1
21. Bert Johnson	2-1
22. Tim Kennedy	2-0
23. Ellen Richardson	1-11
24. Ruth Russel	1-11
25. Ralph Brown	1-6
26. Kenneth Jackson	1-4

Table 3. Choices of subjects as recorded in Situation I.

Subjects	C.A.	9	11	12	13	14	15	16	19	20	22	Total
9. Henry	3-7		3	1	2						A	3
11. Cleo	3-5	1			2							2
12. Mary	3-5						3	1	2			3
13. Hugh	3-4		1	3			2					3
14. Jane	3-4		1				2		3			3
15. Sandra	3-2		2	1							3	3
16. John	3-1											0
19. Margie	2-8		1		2		3					3
20. Brian	2-5	2						1				2
22. Tim	2-5		A		1							1
first choices		1	3	2	1	0	0	2	0	0	0	
total		2	5	3	4	0	4	2	2	0	1	23

Table 4. Choices of subjects as recorded in Situation IIa.

Subjects	C.A.	16	17	18	20	21	22	23	24	26	26	Total
16. John	3-7					2	1		3			3
17. Hilda	3-6	2		3				1				3
18. Lorraine	3-5		2					3	1			3
20. Brian	3-0	1	2									2
21. Bert	3-0		2					3	1			3
22. Tim	2-11		1			3		2				3
23. Ellen	2-11											0
24. Ruth	2-10		3		2			1				3
25. Ralph	2-6											0
26. Kenneth	2-4											0
first choices		1	1	0	0	0	1	2	2	0	0	
total		2	5	1	1	2	1	5	3	0	0	20

Table 5. Choices of subjects as recorded in Situation IIb.

Subjects	C.A.	1	2	3	4	5	6	7	8	9	10	13	15	total
1. Hope	4-10		3		2			1						3
2. Harriet	4-10										1		2	2
3. Michael	4-9	1	2							3				3
4. William	4-8					2		1						2
5. Walter	4-8	1	2	3										3
6. Sally	4-8	3			A						1	2		3
7. Bobby	4-7	1	2			3								3
8. Barry	4-7					A		1		3			2	3
9. Henry	4-3				1	A								1
10. Cecelia	4-3	2	3						1					3
13. Hugh	3-11						3				1		2	3
15. Sandra	3-9			2						1		3		3
first choices		3	0	0	1	0	0	3	1	1	3	0	0	
totals		5	5	2	2	2	1	3	1	3	3	2	3	32

Although no distinction is shown on the sociograms among first, second and third choices, the number of first choices that each child received is indicated in the tables.

The sociogram of the spring 1952 group (Situation I) (Fig. 2) presents a total of 23 choices made by 10 children. One child made no choices. There were three mutual choices, one intra-sex choice and two inter-sex choices. There were no children in CP1. In sociograms of groups of preschool age, there are rarely any children in CP1. The group is still too scattered and diverse for any one to have an opportunity to receive as many as seven choices. There were three children in CP2, five children in CP3, and two children in CP4. Of the first choices, one child received three, two children two each, two children received one each, and five children received no first choices. No indication of cliques appear within the group.

The sociogram of the younger group in the fall of 1952 (Situation IIa) (Fig. 3) presents a total of 20 choices made by 10 children. Three children made no choices. There were two mutual choices, both of which were intra-sex choices. There were no children in CP1; one child in CP2; seven children in CP3 and two children in CP4. Of the first choices, two children each received two choices, and five children received no first choices. No indication of cliques appear within the group.

The sociogram of the older group in the fall of 1952 (Situation IIb) (Fig. 4) presents a total of 32 choices made by twelve children. All the children made at least one choice. There were four mutual choices, three inter-sex choices, and one intra-sex

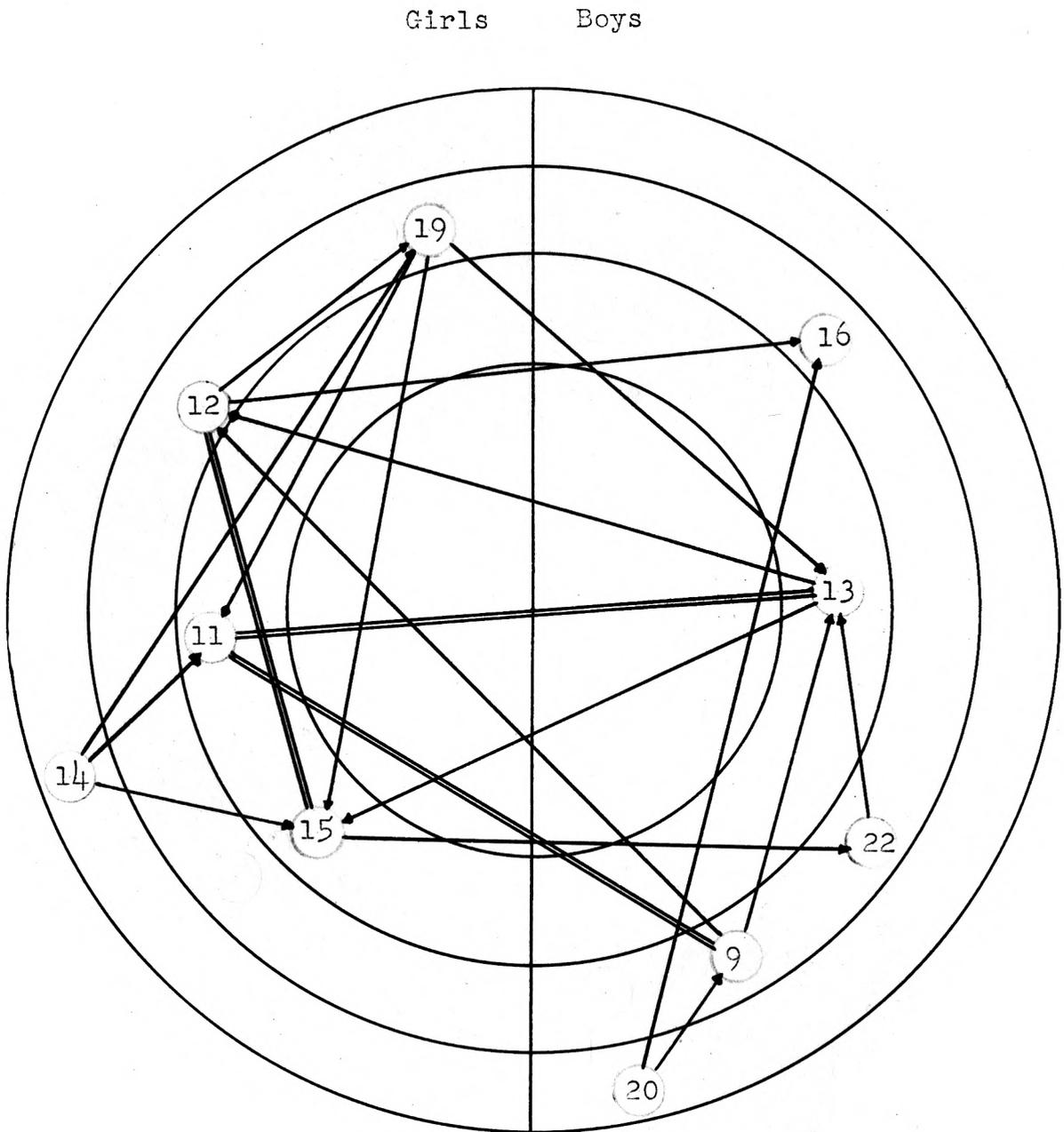


Fig. 2. Sociogram of Situation I.

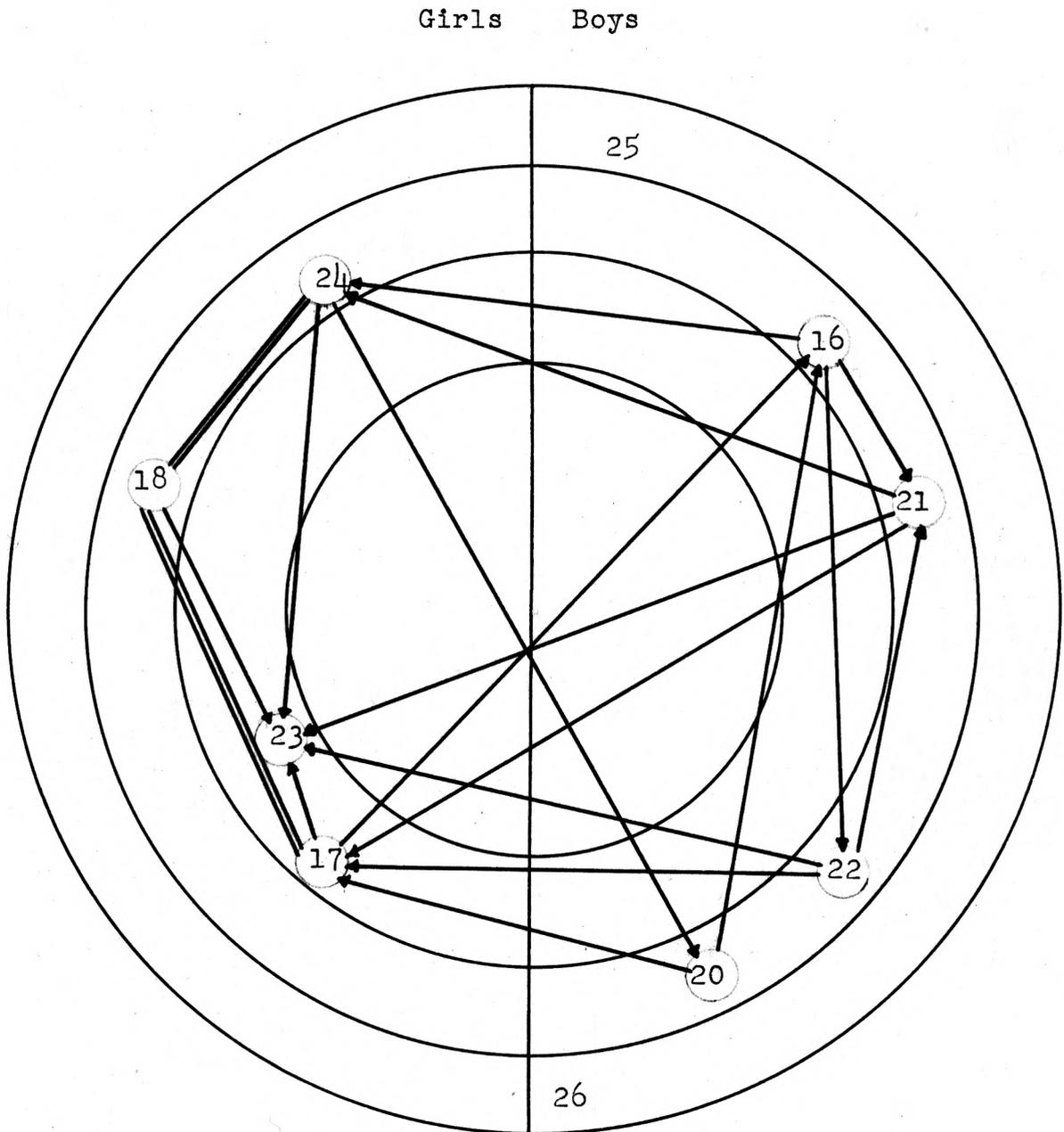


Fig. 3. Sociogram of Situation IIa.

Girls Boys

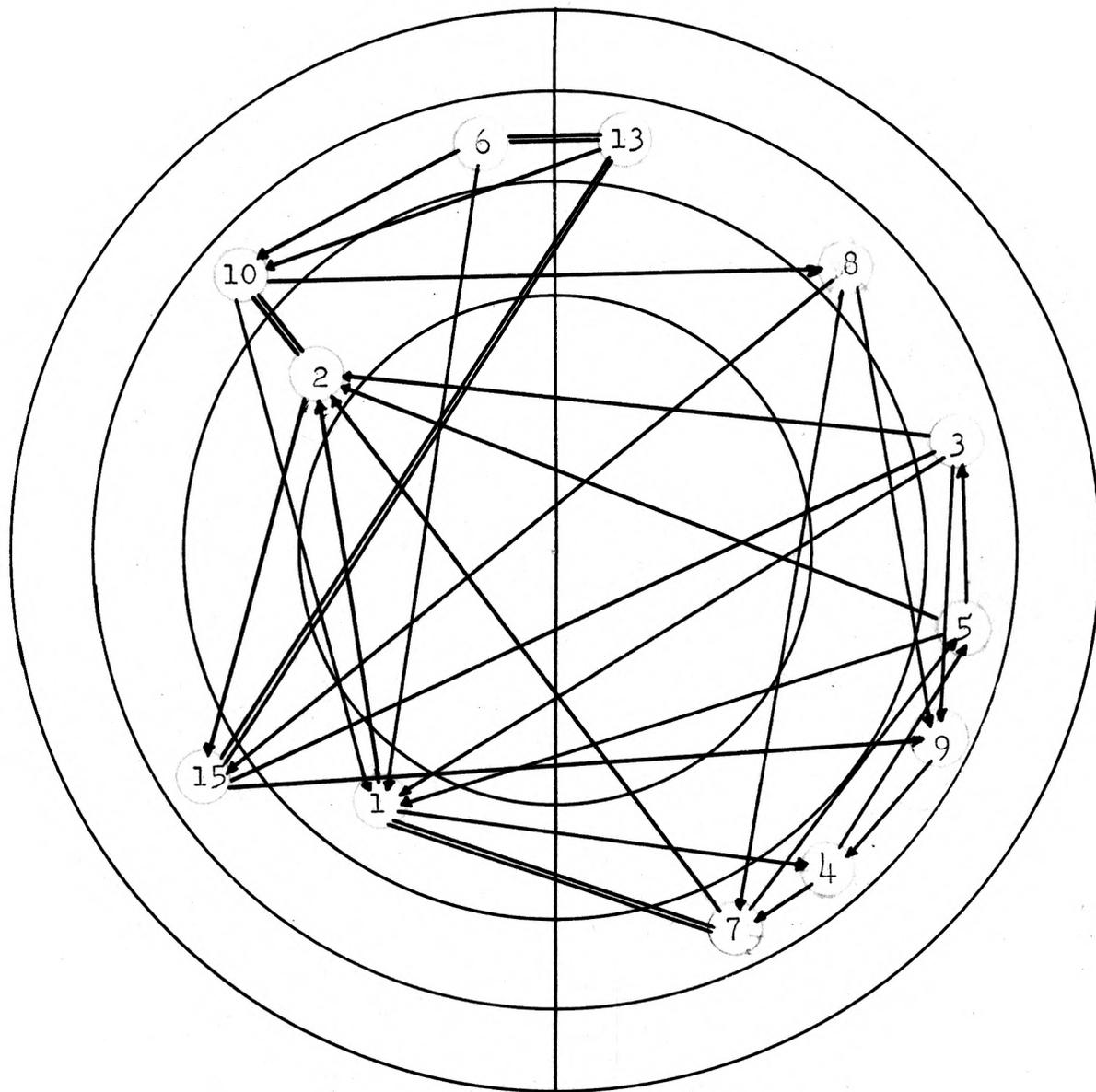


Fig. 4. Sociogram of Situation IIb.

choice. There were no children in CP1, two children in CP2, ten children in CP3 and no children in CP4. Of the first choices, three children received three first choices each; three children received one first choice each; and six children received no first choices. No indication of cliques appear within the group.

In trying to study the factors in a child's personality which contributed to his sociometric score, a subjective analysis of the choices was made. Each child's choice was classified on a basis of dominating-leadership, followership or mutual play interest. Tables 6, 7 and 8 indicate these possible explanations. Figures 5, 6, and 7 picture the same sociograms as in Figs. 2, 3 and 4, but indicate possible reasons for choices.

Table 6. Possible explanations of choices in Situation I

Subjects	9	11	12	13	14	15	16	19	20	22
9. Henry	-	L	L	P	-	-	-	-	-	-
11. Cleo	F	-	-	F	-	-	-	-	-	-
12. Mary	-	-	-	-	-	P	F	F	-	-
13. Hugh	-	L	L	-	-	L	-	-	-	-
14. Jane	-	L	-	-	-	P	-	P	-	-
15. Sandra	-	P	P	-	-	-	-	-	-	P
16. John	-	-	-	-	-	-	-	-	-	-
19. Margie	-	P	-	F	-	P	-	-	-	-
20. Brian	P	-	-	-	-	-	P	-	-	-
22. Tim	-	-	-	F	-	-	-	-	-	-

P indicates the child was chosen because of a mutual play interest
 L indicates the child was chosen for his leadership ability
 F indicates the child was chosen for his followership ability

Table 7. Possible explanations of choices in Situation IIa.

Subjects	16	17	18	20	21	22	23	24	25	26
16. John	-	-	-	-	L	L	-	L	-	-
17. Hilda	F	-	P	-	-	-	F	-	-	-
18. Lorraine	-	P	-	-	-	-	F	P	-	-
20. Brian	P	L	-	-	-	-	-	-	-	-
21. Bert	-	L	-	-	-	-	F	L	-	-
22. Tim	-	L	-	-	L	-	F	-	-	-
23. Ellen	-	-	-	-	-	-	-	-	-	-
24. Ruth	-	-	P	P	-	-	F	-	-	-
25. Ralph	-	-	-	-	-	-	-	-	-	-
26. Kenneth	-	-	-	-	-	-	-	-	-	-

Table 8. Possible explanations of choices in Situation IIb.

Subjects	1	2	3	4	5	6	7	8	9	10	13	15
1. Hope	-	P	-	F	-	-	P	-	-	-	-	-
2. Harriet	-	-	-	-	-	-	-	-	-	F	-	F
3. Michael	L	L	-	-	-	-	-	-	L	-	-	-
4. William	-	-	-	-	L	-	L	-	-	-	-	-
5. Walter	L	L	L	-	-	-	-	-	-	-	-	-
6. Sally	L	-	-	-	-	-	-	-	-	P	F	-
7. Bobby	P	P	-	-	F	-	-	-	-	-	-	-
8. Barry	-	-	-	-	-	-	L	-	F	-	-	F
9. Henry	-	-	-	P	-	-	-	-	-	-	-	-
10. Cecelia	L	L	-	-	-	-	-	L	-	-	-	-
13. Hugh	-	-	L	-	-	-	-	-	-	L	-	L
15. Sandra	-	-	L	-	-	-	-	-	L	-	L	-

Most inter-sex choices were for dominating-leadership or followership. Out of a total of 36 inter-sex choices, 31 were for leadership-followership and 5 were for mutual play interest. In terms of percentages, 86% of the inter-sex choices were of the leadership-followership type and 14% were of the mutual interest type. In comparing the number and percentage of mutual play

Girls Boys

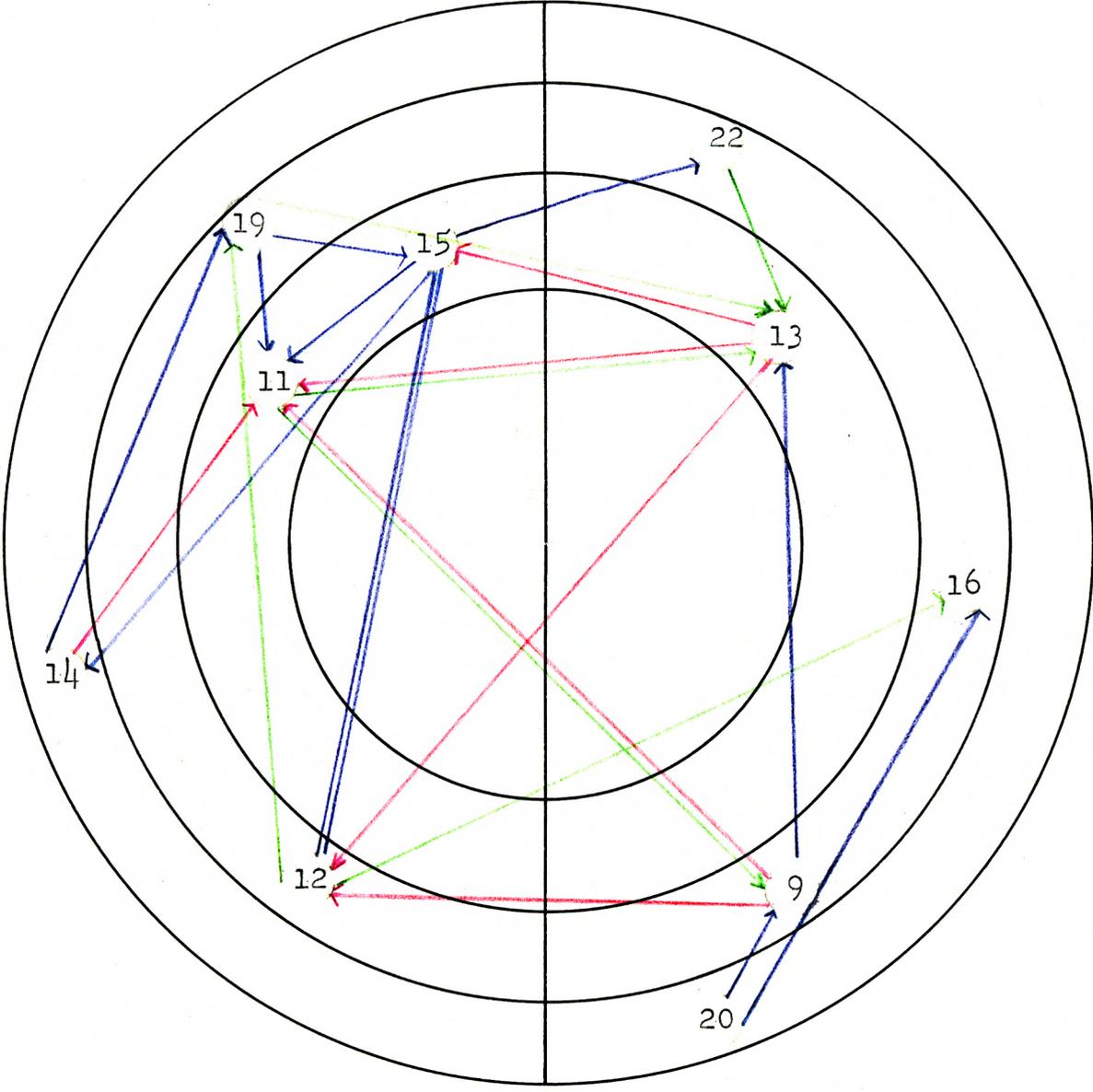


Fig. 5. Sociogram of Situation I.
Possible explanations of choices.

Legend: leader ex. follower 13
 follower leader 11
 mutual play interest

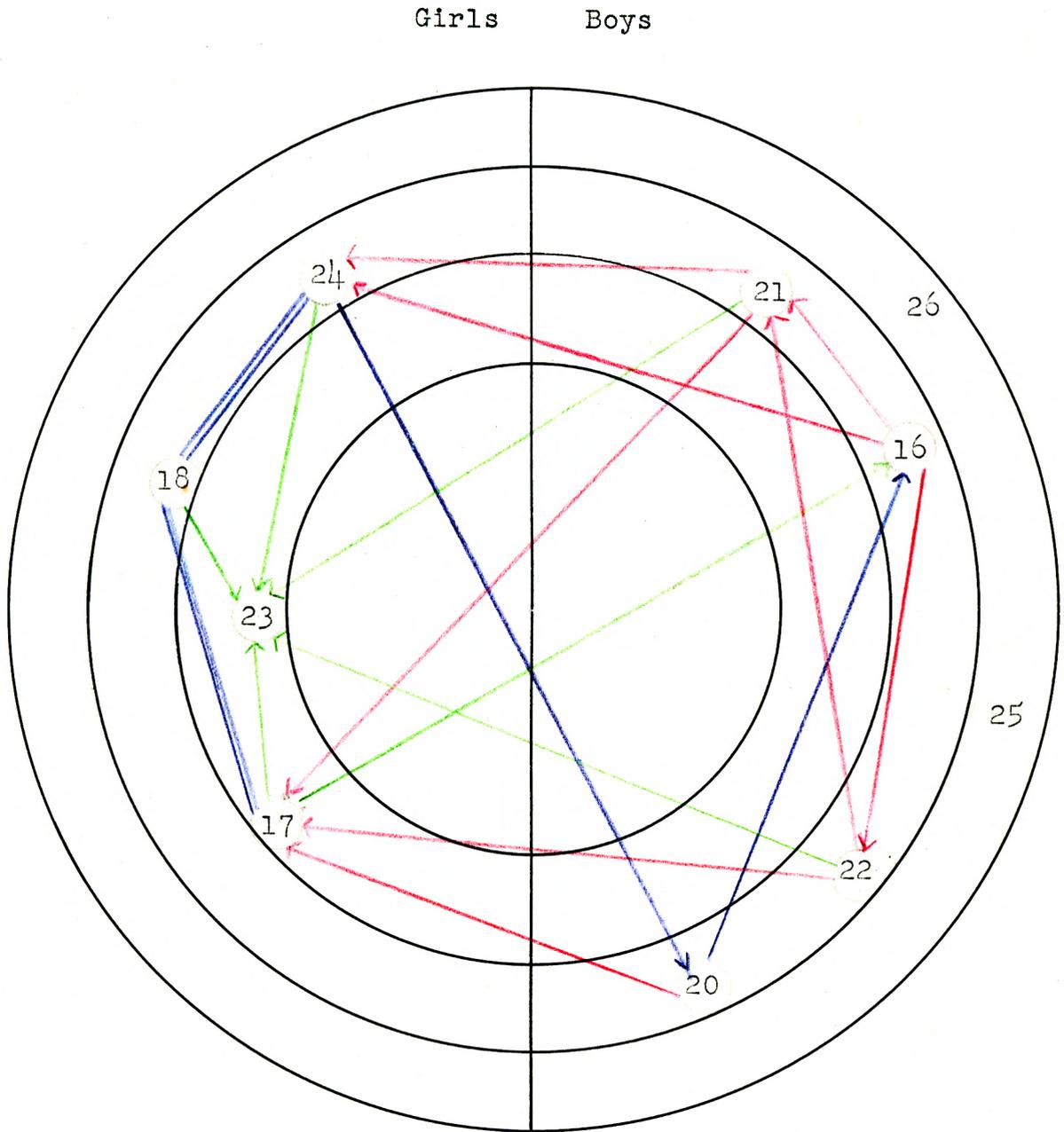


Fig. 6. Sociogram of Situation IIa.
Possible explanation of choices.

Legend: leader —
 follower —
 mutual play interest —

ex. 23 follows 17
 17 leads 20

Girls Boys

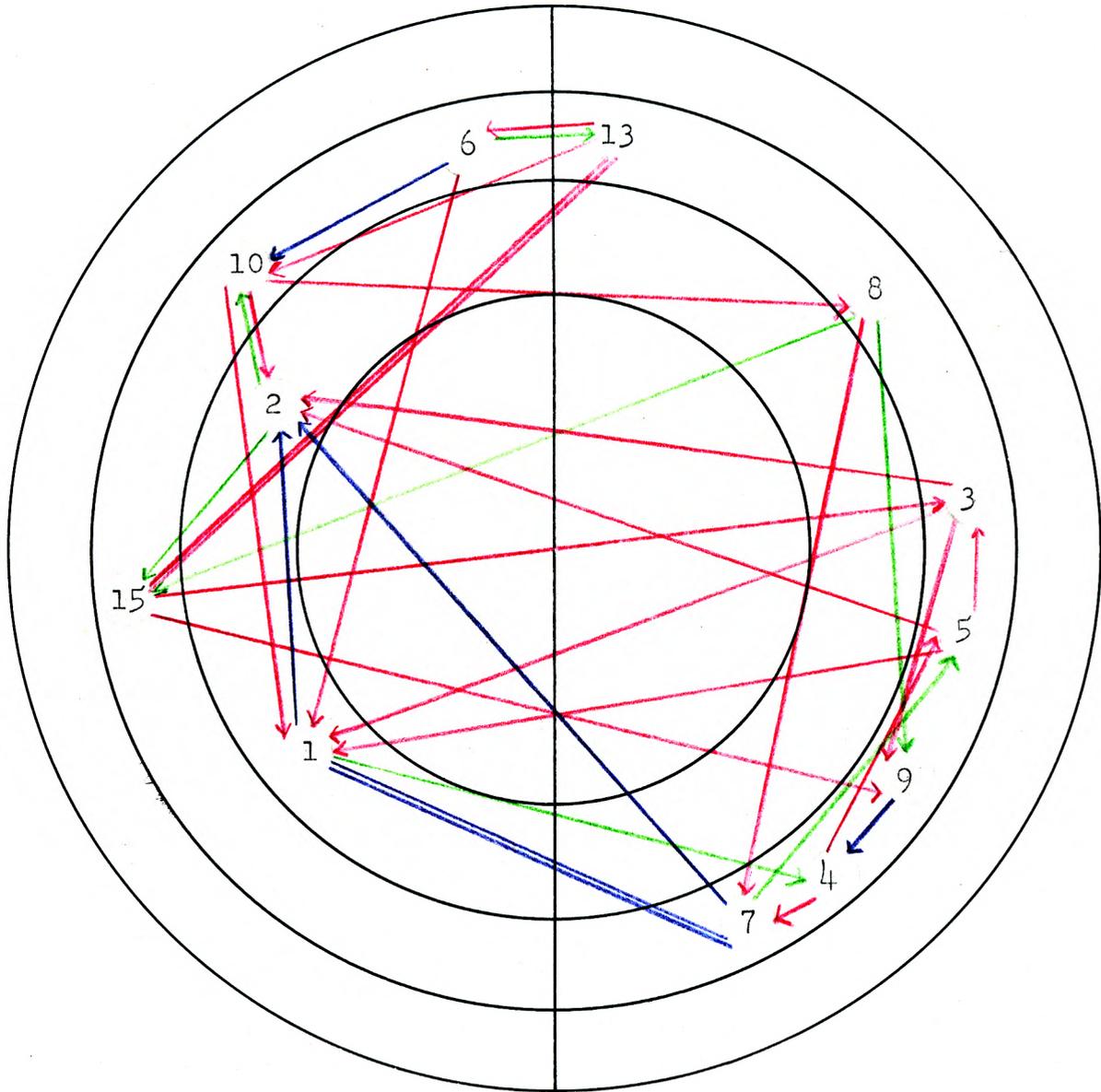


Fig. 7. Sociogram of Situation IIb.
Possible explanation of choices.

Legend: leader —
 follower —
 mutual play interest —

ex. follower 13
 leader 6

interest choices and choices for leadership-followership, out of a total of 75 choice explanations, there was a total of 9 mutual choices in the three sociograms. Five of these were for mutual play interest and three were on a dominating leadership-followership basis. The other mutual choice was on a followership--followership basis. This boy, #13 Hugh, always followed #15 Sandra in certain play areas such as doll and house play, while Hugh always led Sandra in other areas such as grocery store and block play. Although it seemed to the writer that there definitely were followership roles played, these roles did not seem to be freely interchanged. If they had been, the choices would have been classified as mutual play interest choices. Mutual play interest involves give and take without necessarily domination.

There were no children in CP1 and five children in CP2. These five children were chosen ten times as leaders, eight times as followers and five times because of mutual play interest. In these sociometric situations children chose other children more often for either leadership or followership ability than for mutual play interest (table 9).

On the basis of staff judgments, one might speculate in regard to an interpretation. It might indicate that there are four stages of play observable at the preschool level. The first is solitary independent. The child plays by himself and has no contact with the group. In the sociogram he selects no one and no one chooses him. Two boys and no girls were in this stage. The two boys, Kenneth and Ralph, were 2-4 and 2-6 at the time of the test. They were the two youngest children in the study. The

Table 9. Analysis of children in CP2.

Subject	C.A. (months)	I.Q.	total choices	first choices	terms in N.S.	Joel Matur. Age	chosen as leader	chosen as follower	chosen for mutual play interest
11. Cleo	41	149	5	3	3½	67	3	0	2
13. Hugh	40	117	4	1	2	30	0	3	2
15. Sandra	38	126	4	0	1	44	1	0	3
17. Hilda	43	113	4	1	1½	40	3	0	1
23. Ellen	35	112	5	2	1½	30	0	5	0
2. Harriet	58	87	5	0	3 2/2	-	3	0	2
1. Hope	58	79	5	3	3 2/2	-	4	0	1

second stage is one in which there is no dominating leadership. The stage is the level of parallel play in which there is no follower or leader. The children play beside each other but not with each other. The third stage is one of leadership-followership. The children are learning to play with each other. They have not yet learned how to play cooperatively and so at this level there is no interchange of the leadership roles, but leadership-followership roles are definitely assumed and maintained. This stage of play was the stage in which most of the children in this study were engaged. The fourth stage of play might have been interpreted as the cooperative stage. These children have now learned how to play cooperatively. Their play consists mainly of organized play activities and accepting certain roles. The children have learned how to take turns leading and following. They no longer need to dominate in order to lead. They can give up their leadership role to another when the occasion demands. The writer was interested in the relationship to Parten's (18) classification of play levels.

Examination of the sociogram does not indicate any significant sex-cleavage. However, the situation for the sociogram, a walk, was an activity that was mutually interesting and enjoyable to both sexes. It has been observed at the nursery school that there is a sex-cleavage in the total amount of time that boys and girls spend at such things as dolls, housekeeping, trains and blocks. It would be interesting to study sex-cleavage from a sociogram with the criterion for choices being one of those indicated above. Will the children have the criterion in mind when they pick their play-mates, and if so, will a sex-cleavage show up in the sociogram?

Of the ten children who were in the younger group in the spring of 1952, there were six children left in the morning group in the fall of 1952. Three of these children remained in the younger group and three moved to the older group. Table 10 shows what changes occurred to these children in certain areas over the period of the study. Of the three children who changed to the older group, one remained in the same circle position in the two sociograms and two moved from CP2 to CP3 (a position of having received fewer choices than in CP2).

Henry #9 was the boy whose CP remained the same even though he changed groups. In the spring of 1952, Henry was 44 months old and was the oldest in his group. He had a maturity age on the Joel scale of 35 months. Data for the second sociometric test were taken eight months later and Henry's score on the Joel test had increased 10 months. Even though Henry's maturity age was lower than his chronological age, he did show growth in maturity traits of an amount equal to his growth in physical age over the period of the study. In analyzing the differences between the two language studies made of Henry, we see an increase in the percentage of verbs and a decrease in the percentage of nouns and pronouns. Although the total number of words showed a decrease, the number of different words showed an increase. His language development showed growth for the period of the study. In interpreting the results of these language studies, it must be kept in mind that these findings were based on one language study each semester. The analyses are significant only as they relate to other points about each child. In the fall of 1952 Henry was the ninth oldest in a group of twelve

Table 10. Comparative data on six children.

Name	CA (mo.)	I.Q.	Joel Maturity Age (Mo.)	Language				Choices	:	CP	:	Change	:	Group
				% nouns & pro.	% verbs	total no. words	no. diff. words	made	:	in CP	:			
Henry	S 44	128	35	31	26	209	62	3	:	3	:	0	younger	
	F 52		45	21	31	176	73	1	:	3	:	0	older	
Hugh	S 40	117	30	33	25	179	63	3	:	2	:	1	younger	
	F 47		37	33	27	147	62	3	:	3	:	1	older	
Sandra	S 38	126	44	25	36	196	63	3	:	2	:	1	younger	
	F 46		28	33	31	201	90	3	:	3	:	1	older	
John	S 37	86	-	36	23	86	34	0	:	3	:	0	younger	
	F 43		39	31	34	156	61	3	:	3	:	0	younger	
Brian	S 29	124	-	32	28	123	51	2	:	4	:	1	younger	
	F 36		51	37	23	145	77	2	:	3	:	1	younger	
Tim	S 29	131	-	43	18	112	37	1	:	3	:	0	younger	
	F 36		44	34	31	154	68	3	:	3	:	0	younger	

children. There was a difference of eight months between Henry and the oldest in the group.

Hugh #13 was another boy who moved to the older group in the fall of 1952. His sociometric status showed a change in his circle position from CP2 to CP3. In the spring of 1952 Hugh was 40 months old and was the fourth oldest in the group. There was a difference of four months between his chronological age and that of the oldest in the group. In the fall of 1952 Hugh was the 11th oldest and there was a difference of 12 months between his chronological age and that of the oldest in the group. In the spring, Hugh had a maturity age of 30 months on the Joel scale and when data for the second sociometric test were taken seven months later, his score on the maturity test had increased by seven months. In analyzing the differences between the two language studies made of Hugh, it was found that the percentage of nouns and pronouns had remained the same, the percentage of verbs had increased two percent, the total number of words decreased and the number of different words had decreased by one. Thus we see that although Hugh's social maturity had increased over the period of the study, his language development seemed to remain static. The type of choices that Hugh made remained the same. In both instances, he chose people on the basis of their dominating-leadership roles. Hugh did not seem unhappy in the new group.

Sandra #15 was the third person who changed groups in the fall of 1952. In the spring term, Sandra's chronological age was 38 months and she was the sixth oldest in the group. There was a difference of 6 months between Sandra and the oldest in the group.

The following fall she was 46 months old and was the youngest in the group of twelve children. There was a difference of 14 months between Sandra and the oldest in the group. In the spring, Sandra had a maturity age of 44 months as indicated by the Joel scale. In the fall, her maturity score had dropped to 28 months. This was a drop of 16 months and a total difference of 18 months between her maturity age and her chronological age in the fall. In studying the pattern of Sandra's choices on the sociometric tests, a significant difference can be noted. In the spring, Sandra's choices were all on the basis of mutual play interest. In the fall all of her choices were for children who had the role of a dominating leader. Sandra's attitude had also undergone a very marked change. In the spring, she was a very happy child who always had many ideas for play. In the fall, she was very unhappy. She no longer contributed ideas to the group. In analyzing the differences between the two language studies of Sandra's, it was noted that the percentage of nouns and pronouns increased. This is a reversal of the usual developmental trend. The percentage of verbs decreased, which is also a reversal of the usual trend. The total number of words increased slightly and the number of different words also increased. In considering the two language studies, the regressions counterbalanced the increases. As evidenced by these studies, Sandra's language development seemed unchanged over the period of the study. Since it was seen that Sandra was not enjoying her nursery school experiences while she was in the older group, and, in fact, that she seemed to grow increasingly unhappy as the term wore on, she was returned to the younger group for the

last few weeks of the fall semester. Sandra was a much happier child in this group where she was the oldest. She once again seemed the Sandra that the staff had known in the spring. Sandra was withdrawn from the nursery school at the conclusion of the fall semester. Therefore, it is not known how long it would have been before Sandra would have been ready to return to the group more comparable to her own chronological age.

John #16 was one of the three boys who remained in the younger group. His circle position remained unchanged for both sociograms. In the spring, John was 37 months old and was the eighth oldest in the group. Six months later, when the second test was made, John was the oldest in the group. No measurement was made of John's maturity age in the spring. In the fall semester, he had a maturity age of 39 months, which was four months below his chronological age. In analyzing the differences between the two language studies, it was noted that the percentage of nouns and pronouns decreased and the percentage of verbs increased. The total number of words and the number of different words also increased. This was the expected developmental pattern. John made no choices in the spring term and in the fall term all his choices were for leaders.

Brian #20 remained in the younger group in the fall. His circle position showed an advance of one circle, from the isolate CP₄ to CP₃. In the spring semester he was the eighth oldest of the ten children. He was 29 months old, and there was a difference of 15 months between him and the oldest child in the group. Seven months later, he was the third oldest in the group. No rating on

the Joel Maturity scale was made for Brian in the spring semester. In the fall, he had a rating of 51 months, which was 15 months more than his chronological age. In studying the differences between the two language studies of Brian, it was noted that the percentage of nouns and pronouns increased while the percentage of verbs decreased. This is a reversal of the expected pattern of development. The total number of words increased and so did the number of different words. The regression of development of parts of speech was counterbalanced by growth in the development of total number of different words. No gain in development of Brian's language was indicated by the language study over the period of this study. In the spring semester, his choices were based on mutual play interest and in the fall semester one of his choices was on the basis of mutual play interest and the other one was on the basis of choosing a leader type individual.

Tim #22 also remained in the younger group in the fall semester. His circle position showed no change over the period of the study. Tim was 29 months old at the time of the first sociogram. He was the youngest in the group of ten children and there was 16 months difference between his age and that of the oldest in the group. No rating on the Joel Maturity Scale was made for Tim in the spring of 1952. In the fall he had a maturity age of 44 months on the scale. This was eight months more than his chronological age at the time. In studying the differences between the two language studies of Tim's, it was found that the percentage of nouns and pronouns decreased and the percentage of verbs increased. This was the expected developmental pattern. The total

number of words increased and the number of different words also increased. Tim's language showed definite growth over the period of the study. In studying the pattern of his choices, it was found that in the spring term, his single choice was on the basis of choosing a child to be a follower. In the fall term, two of the children were chosen on the basis of dominating-leadership and the other choice was on the basis of followership.

In these cases, significant factors which affected the change in the child's circle position seemed to be the child's development in language and social maturity over the period of the study. Children whose positions either remained the same or advanced, usually showed growth in both maturity and language. Those children whose positions regressed, in one case were accompanied by a regression in social maturity and no growth in language. In the other case, although the social maturity score kept pace with his growth in age, his language development remained the same. The child's relative position in the group, particularly the difference between the child and the oldest in the group was also interesting. In the spring term there had been a difference of six and four months between each of the children and the oldest in the group, while in the fall the difference in ages was eighteen and twelve months.

From the above, a possible technique for nursery school teachers might be suggested. Those children whose group had been changed would be watched very closely for a period of about a month. A Joel maturity age would be taken before the change occurred and after a month had elapsed. If a definite regression

was shown, the child would be shifted back to the original group. The regression might not have been caused by the shift in the group. Other factors might have coincided with the change. An example of this might be an emotional crisis in the home. However, regardless of the cause of the regression, shifting the child back to the original group would be indicated. When it is felt that the change might be tried again, the same procedure should be followed.

CHOICE READINESS

Method of Procedure

The term "choice-readiness" is not one that has been previously found in the literature. The term readiness, however, is one with which most people are now familiar. Reading-readiness is a concept that teachers and parents know. It is defined as development along those lines which are related to success in learning to read. Reynolds (19) points out that reading-readiness involves such things as physical growth of eye muscles and nerves, development of intellectual abilities and a broadening of interest and experiences to the point where the printed symbols mean something to the child. "Choice-readiness" may be defined as the ability and willingness to make a verbal choice. The writer felt that this trait is important to the parent and to the teacher in their guidance of children.

In this study, only the child's ability to choose a person or persons to participate with him in a certain situation was studied. Data in addition to that mentioned previously in this study were used. At the beginning of the present study, data on

two different choice situations were collected. The first choice criterion was a "walk" and the second choice criterion was a "story" situation. Only data from the walk situation were used in the first part of this study. Data for sociometric study were also collected during the summer term of 1952. Since, however, the enrollment in summer school was so small, the data were not included in the first part of the study. Lack of adequate numbers brought up the question of supplementing the writer's data with data from other studies. Data from an unpublished study by Schulz at the University of Tennessee and the data from the Kiser (10) study at Kansas State College were used.

In studying choice-readiness, interest was in the child's ability to make a verbal choice. The conditions under which the choices were made were somewhat similar, i.e., the teacher-writer had rapport with the children, the situation was followed through and the setting was a college nursery school. The children in all the situations were expressing a verbal choice for one or more persons. The criterion of the choice, i.e., walk, story or lunch situation, and the number of choices allowed each child were the only important variables.

The data were assembled according to the age of the children. The data were then studied to see if any developmental trait could be discerned as a basic component of the factor of choice-readiness.

Discussion and Conclusions

Table 11 indicates the data found in regard to choice-readiness. Each time that any child made a choice in a different situation is

Table 11. Ages and number of choices made by each child in each situation

CA	No. Choices	Study	CA	No. Choices	Study	CA	No. Choices	Study
4-10	2	Steffen	3-11	3	Steffen	2-11	3	Steffen
4-10	3	Steffen	3-9	4	Schulz	2-11	4	Schulz
4-9	3	Steffen	3-9	4	Schulz	2-10	0	Schulz
4-8	2	Steffen	3-9	2	Kiser	2-10	0	Schulz
4-8	3	Steffen	3-9	3	Kiser	2-9	3	Schulz
4-8	3	Steffen	3-9	3	Steffen	2-8	3	Schulz
4-8	5	Schulz	3-8	2	Kiser	2-8	3	Steffen
4-7	3	Kiser	3-8	3	Kiser	2-8	2	Steffen
4-7	3	Kiser	3-8	0	Schulz	2-7	0	Steffen
4-7	3	Steffen	3-8	0	Schulz	2-7	2	Steffen
4-7	3	Steffen	3-7	3	Schulz	2-7	0	Steffen
4-6	4	Schulz	3-7	5	Schulz	2-7	1	Steffen
4-6	4	Schulz	3-7	3	Steffen	2-6	1	Steffen
4-5	1	Kiser	3-6	3	Steffen	2-6	0	Steffen
4-5	3	Kiser	3-6	3	Schulz	2-6	0	Steffen
4-5	3	Kiser	3-6	3	Schulz	2-6	0	Steffen
4-5	3	Kiser	3-5	2	Steffen	2-6	0	Schulz
4-4	0	Schulz	3-5	1	Steffen	2-6	0	Steffen
4-3	3	Kiser	3-5	3	Steffen	2-6	0	Steffen
4-3	3	Kiser	3-5	3	Steffen	2-5	1	Steffen
4-3	1	Steffen	3-5	3	Steffen	2-5	0	Steffen
4-3	3	Steffen	3-4	3	Steffen	2-5	5	Schulz
4-2	3	Kiser	3-4	0	Steffen	2-5	2	Steffen
4-2	3	Kiser	3-4	3	Steffen	2-5	0	Steffen
4-2	4	Schulz	3-4	1	Steffen	2-4	0	Steffen
4-1	2	Kiser	3-4	2	Kiser			
4-1	3	Kiser	3-4	3	Kiser			
4-1	4	Schulz	3-4	5	Schulz			
4-1	4	Schulz	3-3	3	Kiser			
4-0	2	Kiser	3-3	3	Kiser			
4-0	3	Kiser	3-3	3	Schulz			
4-0	1	Schulz	3-2	2	Kiser			
4-0	3	Steffen	3-2	2	Kiser			
4-0	3	Steffen	3-2	3	Steffen			
			3-2	3	Steffen			
			3-2	0	Kiser			
			3-1	0	Steffen			
			3-1	0	Steffen			
			3-1	1	Steffen			
			3-1	0	Steffen			
			3-0	4	Schulz			
			3-0	0	Schulz			
			3-0	3	Schulz			
			3-0	2	Schulz			
			3-0	0	Steffen			
			3-0	0	Steffen			
			3-0	3	Steffen			
			3-0	2	Steffen			

listed on the chart. A total of 107 choices from 72 different children is presented. The average number of choices made by each child was 1.5. A few of the younger children in the writer's group were asked for choices in as many as four different situations.

Examination of the chart discloses that there were 34 four year olds. Choices were made by 100% of these children. There were 16 choice situations among the children 3-6 and older. Of these 87.5% were able to make choices. Of the 32 choice situations among the children 3-0 and older, 75% were able to make choices. Of the 25 choice situations represented by the children 2-4 and older, only 21% were able to make choices. Thus it seems that the ability to make choices is a developmental trait.

It might be asked if this trait of choice-readiness is not merely a part of language development. In other words, if a child has language facility, will he automatically be able to make choices? The writer does not think that this is always so. Of those children in this study only one did not talk enough for the writer to obtain a language record. Lorraine is an example of a child who had language facility and yet did not make any choices. She was 3-1 at the time this incident took place. On her language record, she had a total of 125 words and 44 different words.

Teacher-writer. We are going to have two story groups today.

Which children would you like in your group?

Child. One

T. You tell me the names of the children.

C. Two, three.

T. Which children would you like in your group?

C. Two, three.

T. You know their names. Tell me.

C. Just one.

T. Which one?

C. A girl.

T. Which girl?

C. A girl.

T. You tell me the girl's name.

C. One....one, two.

T. You tell me the children's names.

C. One.

Some might say that the children did not know the names of the children in their group. The data were not taken until each term was half over and all the children knew the names of all the other children. The writer ascertained this by playing guessing games in which the object was to name the other children in the group, by asking them what a child's name was, and by other means.

The factor of recall might be important in this study. Could the children remember the names of the children when they were taken out of sight of them. Could they recall the individual and the name sufficiently to tell it to the examiner. Some might think, especially when examining the number of choices made by the Tennessee group, that the child was not actually making a choice but was merely enumerating the children in the group. Fourteen out of twenty-nine children in the Tennessee group made more than three choices. Was this recall or rote memory?

In other cases, particularly where the child gave only one or

two choices, one might wonder if this indicated low recall or high selection. It probably could be either. Only occasionally would the child indicate that he didn't want any more children. Such a case was Brian who was 2-7 at the time.

T. We're going for a walk today.

C. Let's go now.

T. Whom shall we take with us?

C. Ellen.

T. Whom else shall we take?

C. Ellen.

T. Whom else?

C. Let's go now.

T. Which other children shall we take with us?

C. Nobody.

William presented another picture of a child who was quite definite in the number of his choices. He was 4-8 at the time.

T. We're going for a walk today. Would you like to go?

C. Yes.

T. Whom shall we take?

C. Miss Ferrell.

T. Which children shall we take?

C. Bobby. He's the one. He's my best friend.

T. Whom else shall we take?

C. Walter.

T. Whom else shall we take?

C. That's all.

T. Shall we take any other children?

C. No, that's all.

There are probably many factors that enter into choice-readiness. More study will be necessary to determine what these factors are. The present study seems to indicate that very few two year olds are capable of making choices; that by the time they are three, three-quarters of the children can make these verbal choices; and from four to five, this trait reaches maturity. At this age, it would seem that all children could be expected to make verbal choices for people not present at the time of choosing.

SUMMARY

This study was divided into two sections. The purpose of the first section was to investigate a child's social status as his nursery school group changed. It was found that children chose other children more often on the basis of dominating-leadership or followership than for mutual play interest. A possible technique was suggested for nursery school teachers to use in evaluating the adjustment of children whose group had been changed.

The purpose of the second part of this study was to study the conditions and circumstances affecting choice-readiness. On the basis of the limited data it seemed that choice-readiness is a developmental trait of growth. About one-fourth of the two year olds, three-fourths of the three year olds, and all the four year olds were able to make verbal choices for people not present at the time of choosing.

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A SOCIOMETRIC STUDY OF SOCIAL STATUS
AND CHOICE-READINESS IN A NURSERY SCHOOL GROUP

by

MARGARET MARY STEFFEN

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ABSTRACT

The interpersonal relationships of individuals has been studied intensively through the use of sociometric techniques. Most of the studies have dealt with the middle childhood through adult years. Very few of these sociometric studies have been done at the preschool level.

The main purpose of this study was to investigate a child's social status as his nursery school group changed. The factors which might have influenced the constancy or change of his social status were considered. The factor of choice-readiness was, however, an interesting aspect of this study. Therefore, it was treated separately in the second part of the paper.

In the first part of the study, six children, two and a half to four years, attending the Kansas State College Nursery School during 1952 were the subjects of the study. There were, however, twenty-six other children in the same group as the six children, for one term during the period of the study. Since sociometric data were only collected once for each of the twenty-six children, any change in their social status could not be examined.

During each semester, every child was given an opportunity to choose those children with whom he would like to go for a walk. Procedures established by Jennings were followed. Sociograms were also drawn picturing a subjective analysis of the possible explanations for the choices. These explanations were on the basis of dominating leadership, followership, or mutual play interest. In the three sociometric situations, there were no children in CPl;

seven children in CP2; twenty-one children in CP3; and four children in CP4. A Stanford-Binet score, language record and Joel Maturity Age was also secured for each child as a part of a study of social status. It was found that more often children chose other children on the basis of dominating leadership or followership than on the basis of mutual play interest.

In the second part of the study, only the child's ability to choose a person or persons to participate in a certain situation was studied. Data in addition to that previously mentioned were used. These data were collected by the writer for a second criterion during the first semester of the study, and during the summer session, data were collected using two criteria for the choices. There were 53 choice situations from the writer's data. In order to augment these data, 54 choice situations from two other sociometric studies of preschool children were used. When all the data were assembled, there were 34 four year olds, 48 three year olds and 25 two year olds. Choice-readiness seemed to be a developmental trait. On the basis of the limited data, the following sequential pattern seemed to emerge: about one-fourth of the two year olds, three fourths of the three year olds and all of the four year olds were able to make verbal choices for people not present at the time of choosing.