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This is to certify that the

thesis entitled

"Leadership Methods Used in the Nursery School
as Related to Those Used in the Home
by the Child and His Most Frequent Companions"

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LEADERSHIP METHODS DEMONSTRATED BY THE STUDENTS OF THE
RELATED TO THEIR DEGREE OF KNOWLEDGE OF THE
AND HIS OWN PERSONALITY

LEADERSHIP METHODS DEMONSTRATED BY THE STUDENTS OF THE

A THESIS

Submitted to the Faculty of the College of Education
State College of Agriculture and Applied Science
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Home Management and Child Development

LEADERSHIP METHODS USED IN THE NURSERY SCHOOL AS
ACKNOWLEDGMENTS
RELATED TO THOSE USED IN THE HOME BY THE CHILD
AND HIS MOST FREQUENT COMPANIONS

Assistant Professor of Home Management and Child Development, for her guidance and assistance throughout the course of this study. Further appreciation is expressed to Dr. Irma H. Gross, Head of Department and Child Development, and Miss Dorothy Greer, Assistant Professor of Home Management and Child Development, for their helpful suggestions, and to Dr. W. D. Balco for advice in the statistical analysis of the data.

Acknowledgments are due also to the staffs of the Spartan and College Nursery School and the parents of the children.

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CHAPTER I

INTRODUCTION

Importance of the Study

The individual is born extremely dependent; and while he gradually casts off many of the more obvious signs of dependency, he never comes to exist entirely independent of other members of society. Throughout his life he is more or less dependent upon a great many other people for his happiness and welfare. Who these people are, what their relationship is to him, how they feel and behave toward him varies. Learning to adjust to them, with all their differences, is a major part of the socialization process.

Great individual differences in ability to adjust and adapt socially can be noted in any group of people. Some people seem more self-assured, exhibit a greater degree of understanding of others and are more skilled in their social techniques. These social abilities are not inborn, but result from learning experiences. Evidence seems to suggest that this learning process begins in very early childhood. The young child enters into

his social environment possessing certain potentialities for development, but nevertheless, as a plastic impressionable creature unequipped with the repertoire of behavior and responses which will enable him to engage in successful social interchange. These social patterns will be developed as the child interacts with his social environment. They will at first perhaps be crude and unstable, but they do represent a beginning.

In addition to learning such basic requirements as respect for property rights and avoidance of active conflict with others, it is to the child's advantage to learn, on a somewhat higher level, to participate in cooperative play; to share his possessions with his playmates; to compromise some of his own desires in the interests of group activity; and to recognize and accept the special abilities and limitations of others. With these tools he should win social acceptance and approval and be able to modify the behavior and thinking of others when he so desires.

This ability to modify the behavior of others, to lead and direct them, is regarded in our society as a very desirable one at any age level. Considerable study has been carried on in an attempt to determine what influences combine to produce a leader. At the childhood level, such influences as age in relation to

playmates, physical size, position in the family, native intelligence and parental attitudes and practices have been extensively studied. In recent research the emphasis has shifted to personal relationships. Social behavior patterns are being accredited, in large measure, to the interaction of the child and his personal-social environment. The dominating feature in that environment is undoubtedly the parent, and it is on this parent-child relationship that much attention has been focused in recent years.

The great importance attached to the parent-child relationship is justified, but should not hold the attention to the exclusion of the contribution made by individuals nearer the child's age. As the child approaches school age he spends increasing lengths of time with his contemporaries. It would seem reasonable to expect that some of the child's social patterns, leadership among them, are acquired from, or at least modified by, these relationships.

Objectives of the Study

The objectives of this study were threefold: first, to determine what methods children used in attempting to lead one another in the nursery-school situation; second, to determine to

what extent the use of leadership methods was related to their success; and third, to determine what relationship, if any, existed between the methods used by the child in the nursery school and those he and his frequent companions used with one another in the home environment.

Leadership as Defined in This Study

A variety of different definitions of leadership and related terms are available. It is desirable, therefore, to define the particular meaning which was assigned to the term in this study. Leadership referred to any means, verbal or nonverbal, by which a child attempted to influence or direct the behavior and thinking of other children. Only leadership which was conscious and deliberate was included, as opposed to any unconscious or accidental influence the child might have wielded.

CHAPTER II

REVIEW OF LITERATURE

Age at Which Leadership is Evidenced

Leadership tendencies are evidenced at a very early age. Buhler¹ found that even in the first year of life there were marked differences in the equilibrium and assurance of infants in a social situation. Some are self-assured, while some are intimidated by the presence of another child. From six months of age on, a definite relationship of superiority or inferiority, dominance or submission, is established in a short time. According to Buhler, the features of these earliest leadership tendencies are, first, that the child in no way loses his balance in the presence of other infants, and secondly, that he leads the play by initiating and demonstrating gestures and activities.

¹ C. Buhler, "The Social Behavior of Children," in C. Murchison, A Handbook of Child Psychology (2d ed. rev.; Worcester: Clark University Press, 1933), Chap. 15.

Goodenough² points out that once speech has begun, these differences are easier to see and to describe. By the use of speech, the child is better able to influence the behavior of others. He does not learn the possibilities of this new tool all at once, but as he grows older, an increasingly greater proportion of his conversation with other children of his own age is directed toward modifying their behavior in some way.

The number of social contacts a child makes and the amount of time he spends in social play was found by Parten³ to increase steadily through the preschool years. The size of the group and duration of group projects also show steady increase.⁴ Particularly is this increase noticeable during the third and fourth year. Hurlock⁵ attributes the increased sociability of this period to increased ability to control the body and

² F. L. Goodenough, Developmental Psychology (New York: D. Appleton-Century Co., 1945), 312-13.

³ M. B. Parten, "Leadership Among Preschool Children," Journal of Abnormal and Social Psychology, 27 (1932-33), 430-40.

⁴ A. T. Jersild, Child Psychology (3rd ed.; New York: Prentice Hall, Inc., 1947), 182.

⁵ E. B. Hurlock, Child Development (New York: McGraw-Hill Book Co., Inc., 1950), 218, 227.

handle objects, as well as to improved ability to talk. According to Pigor⁶ it is not until this time, when cooperative play is possible, that leadership appears in any complete form. Parten⁷ found in her study of social participation that cooperative activity was not frequently found up to the age of three years, due to the child's limited speech which makes cooperative play difficult. Directing and reciprocal directing in the group appeared during the third year, and increased through the third and fourth years.

Types or Methods of Leadership

Even among preschool children, complex varieties of leadership are evidenced. As Jersild⁸ points out, a child's leadership of others may take many forms, and his position may be won in a variety of ways.

One child may lead partly by reason of the fact that he is very voluble and mobile and covers more ground. Another child may take an upper hand by selecting and dominating play activities of a group by aggressive methods

⁶ P. Pigor, "Leadership and Domination Among Children," *Sociologus*, 9 (1933), 140-57.

⁷ Parten, *op. cit.*

⁸ Jersild, *op. cit.*

and various forms of coercion. Still another child may lead by reason of his resourcefulness in seeing new and original possibilities and in establishing friendly relations with other children.

Recent studies have tended to separate leadership behavior on the basis of these two broad classes of methods. The use of an extensive list of possible leadership techniques. These she classed as verbal and nonverbal. Verbal methods included invitations, threats, directing, suggesting, requesting and forbidding. Nonverbal methods included touching, smiling and beckoning, initiating an act or game and hitting, pushing or grabbing. She reported few instances of threatening or forbidding, and stated that suggestions were more generally used by all children than directions.

Parten¹⁰ found two definite types of leaders among preschool children, as differentiated by the methods that they used --the diplomat and the bully. The diplomat, by "artful and indirect suggestion," controlled a large number of children; and

⁹ D. H. Wells, "A Study of Some Types of Leadership Shown by Preschool Children and the Specific Responses of Other Children to Such Leadership" (Unpublished Master's Thesis, Michigan State College, 1941).

¹⁰ Parten, op. cit.

the bully, by "brute force," controlled a group he had chosen as his gang.

Recent studies have tended to separate leadership behavior on the basis of these two broad classes of methods. The use of force of any kind is usually referred to as domination; the more diplomatic methods are classed as "true leadership,"¹¹ "integration"¹² or "cooperation,"¹³ depending upon the particular author.

Any forceful methods of influencing one's companion are listed as domination by H. H. Anderson.¹⁴ Blame, reproof, ridicule, shame and commands as well as physical force are included. The child who displays what Anderson terms integrative behavior

¹¹ Pigor, op. cit.

¹² H. H. Anderson, "Domination and Integration in the Social Behavior of Young Children in an Experimental Play Situation," Genetic Psychology Monographs, 19, No. 3 (1937), 341-408.

¹³ G. E. Chittenden, "An Experimental Study in Measuring and Modifying Assertive Behavior in Young Children," Child Development Monograph, 7, No. 1 (Washington, D. C.: Society for Research in Child Development, National Research Council, 1942), 87.

¹⁴ H. H. Anderson, op. cit.

shows greater respect for the desires and rights of other individuals. In contrast to the dominative methods, integrative approaches typically include requests, suggestions, volunteering services and asking questions. Anderson found that boys used a higher degree of integrative behavior than did girls.

Chittenden¹⁵ arranged leadership behavior into two categories, domination and cooperation. Dominative behavior was characterized by direct physical or verbal force. Commands, threats, criticisms, hitting, pushing and grabbing are listed in this category. The more diplomatic or cooperative techniques included suggestions, bargaining, reasoning and requests.

Pigor¹⁶ and Hurlock¹⁷ seem agreed that domination, since it is simpler, appears earlier. According to Hurlock, in early childhood, children lead mainly by domination, aggression and rather tyrannical means, showing little consideration for other members of the group. The child transfers from parental

¹⁵ Chittenden, op. cit.

¹⁶ Pigor, op. cit.

¹⁷ E. B. Hurlock, Adolescent Development (New York: McGraw-Hill Book Co., Inc., 1949), 191-201.

domination to domination by a bossy child. Pigor points out that the child who attempts to lead by domination is a less strong leader than one who leads through understanding, skill and use of the cooperative principle. He states however, that "children who are genuine leaders must have some self-discipline, some grasp of abstractions, a recognition of social ideals, an awareness of the personalities of others, the ability to pursue objectives consistently and the ability to subordinate immediate to more remote goals." These abilities, he feels, seldom develop before the age of nine or ten, so that full-fledged leadership is rarely found among children of preschool age.

Permanence of Leadership Among Young Children

Leadership among children is hardly a permanent thing; leaders come and go. While many authors^{18,19,20} imply that

¹⁸ R. E. Arrington, Interrelations in the Behavior of Young Children (New York: Bureau of Publications, Teachers College, Columbia University, 1932), 18.

¹⁹ Hurlock, Child Development, op. cit.

²⁰ G. Murphy, L. B. Murphy, and T. M. Newcomb, Experimental Social Psychology (New York: Harper and Bros., 1937), 208, 210.

the role of the child varies markedly from year to year, Hurlock²¹ goes even further, in stating that leadership status may vary from one week to the next. A child who is recognized as a leader one week may lose his status the next and not regain it for a long period of time.

Borgardus²² pointed out that every person exerts some influence over a few people. Similarly, Anderson²³ found that virtually every young child acts as a leader on some occasions and as a follower on others. From a study of leadership among 34 preschool children, Parten²⁴ concluded that leadership is not a simple trait possessed to a maximum degree by a few, but that it is present in all people in varying degrees. Leadership, she felt, is as much a function of the personnel of the group and its activities as of the individual child.

²¹ Hurlock, Adolescent Development, op. cit.

²² F. Borgardus, Fundamentals of Social Psychology (New York: The Century Co., 1931 [revised]), 409.

²³ J. E. Anderson, The Psychology of Development and Personal Adjustment (New York: Henry Holt Co., 1949), 354-57.

²⁴ Parten, op. cit.

Ease of Detecting Leadership Attempts Among Preschool Children

The play of the preschool child is particularly revealing as to his personality patterns and characteristics. According to Chave,²⁵ responses are made consciously or unconsciously with more or less abandon; and as the child loses himself in his play, his dominating tendencies and attitudes are made clear.

Murphy, Murphy and Newcomb²⁶ find this true of leadership attempts. The child's activity is more direct, forceful and of shorter duration than that of adults, hence is more readily discernible. Verbal attempts are usually phrased to create immediate action on the part of another and are so phrased that the purpose is self-evident. Likewise, nonverbal attempts are aimed at immediate change in the actions of others. Pushing, pulling, hitting and patting are all easily observed.

Arrington²⁷ emphasized the relative simplicity and spontaneity of behavior in early childhood as a factor partially

²⁵ E. J. Chave, Personality Development in Children (Chicago: University of Chicago Press, 1937), 139.

²⁶ Murphy, Murphy and Newcomb, op. cit.

²⁷ Arrington, op. cit.

responsible for the ease with which children may be studied.

Influence of Companions on the Child's Social Behavior

A great number of psychologists and sociologists believe that social behavior patterns are developed through the interaction of young children and their social environment.^{28,29,30}

Parents' attitudes and practices are undeniably a major factor in this environment, but as Stagner³¹ points out, the attitudes and practices of the child's contemporaries make a unique contribution.

The relationships between the child and his parents are not relationships between equals. For this reason, the early contacts of the child with other children, his siblings and play associates, have a more important influence than

²⁸ E. V. Berne, Social Behavior Patterns in Young Children (University of Iowa Studies in Child Welfare, 4, No. 3, 1930), 93.

²⁹ H. Champney and H. Marshall, "Optimal Refinement of the Rating Scale," Journal of Applied Psychology Monographs, 23 (1939), 323-31.

³⁰ Murphy, Murphy, and Newcomb, op. cit.

³¹ R. Stagner, Psychology of Personality (New York: McGraw-Hill Book Co., Inc., 1937), 21-24.

(3) might be assumed from a consideration of length of time, primacy and other advantages the parents have in determining the personality of their offspring.

Reactions such as cooperation and competition are unlikely to develop in a child who is completely isolated from other children. There may be cooperation and competition of a sort between child and adult but it is quite different from those occurring between equals. In the same way, we cannot expect many other forms of social intercourse to develop normally except as a result of the child's contact with other relatively equal children.

Hurlock,³² too, stresses the role of the child's contemporaries in molding the individual personality. As a result of early social contacts with children as well as adults, the child begins to develop different types of social behavior. He tries to imitate his companions, to make himself like them, so that he will be accepted by the group. The effect of the group, Hurlock feels, is most pronounced during the early years, because at this time the child is the most plastic, mentally and physically.

J. E. Anderson³³ lists as main sources of social behavior: (1) models of social behavior; (2) formal or informal instruction;

³² Hurlock, op. cit.

³³ J. E. Anderson, op. cit.

(3) experimentation with social techniques and (4) wide social opportunities. The child's companions figure significantly in these influences.

In the exchange of experiences during play, Chave³⁴ states that children discover different social techniques. The range of influence on a child from his playmates is from one extreme to the other. Chave cites as an example of the influence, the words, acts and attitudes which the child picks up from playmates when he first goes out into the neighborhood, and which he subsequently "tries out" on his family.

According to Chittenden,³⁵ the child's attempts to influence the behavior of others and his responses to their attempts to influence him are crude. He must learn, largely by trial and error and with more or less incidental help from experienced persons, which of these attempts and responses are likely to result in his acceptance by his associates, and which are likely to meet with their disapproval.

³⁴ Chave, op. cit.

³⁵ Chittenden, op. cit.

CHAPTER III

METHOD OF STUDY

The general intent of this study was to find out what leadership methods preschool children use, and to see if any relationship existed between the types of leadership techniques a child used in the nursery school and the techniques the child and his frequent companions used toward one another in the home environment. With these objectives in mind, the principal problems in method were:

1. The compiling of a list of leadership techniques used by preschool children, and the grouping of these techniques into a few broad categories to facilitate recording and simplify comparisons.
2. The development of some system of observing and recording the leadership attempts made by the children in the nursery-school situation.
3. The development of some means of ascertaining the leadership techniques used by the child and his companions in the home situation.

Part I. Classification of Leadership Behavior

Categories of leadership. A great variety of leadership

techniques is used by even preschool age children. In the

interests of simplifying the recording of behavior, an attempt was made to classify the many methods into a few broad categories.

An extensive list of possible techniques was gathered by making preliminary observations at the nursery school and by reviewing other leadership studies. The studies of Chittenden,³⁶ H. H. Anderson,³⁷ and Wells³⁸ were particularly helpful in this respect. It was possible to group the techniques so gathered into five broad categories.

1. Direct physical contact to enforce demands. This includes such methods as pushing, pulling, hitting and grabbing.
2. Verbal force, threatening to use physical force or inflict some other punishment if the other child does not comply with his wishes. A child may threaten to hit, to tell mother or teacher, or simply not to play anymore; he may gesture in a threatening manner, or he may issue a command in a threatening voice.
3. Commanding or directing a child to do something or refrain from doing something. No reason is given explaining the order. The child is neither threatening nor diplomatic.

³⁶ Ibid.

³⁷ H. H. Anderson, op. cit.

³⁸ Wells, op. cit.

4. Invitations, suggestions or requests to initiate joint activity. Such approaches are often preceded by the words "Let's" or "Come on." A child may request the use of a certain play material, this being an indirect suggestion. He may gesture or beckon in a suggestive or inviting way (as holding out a toy or indicating a place).
5. Bargaining or reasoning to gain one's ends. The child may offer a bribe or inducement (as "I'll give you some candy"), or he may offer to effect a compromise (as "I'll let you use my fire truck if I can use your tractor"). The child who reasons is the one who explains the "why" of the request or suggestion. The word "because" frequently enters into his conversation, and reasons are given which range from the illogical to sound facts.

Categories of response. It was desired to in some way indicate the relative success or failure of the leadership techniques the children used. For this reason, several classifications of response were worked out as follows:

1. Active resistance, which included physical or verbal resistance or seeking the aid of an adult or another child.
2. Passive resistance, which included retreat or withdrawal as well as ignoring the attempt.
3. Complying or accepting the suggestion or command. Submitting to threats or physical coercion.
4. Cooperative response, which consisted largely of adding new ideas to the suggestions given, or bargaining or reasoning with the child initiating the contact.
5. No response given to approach of other child. Contacted child was seemingly unaware of leadership attempt.

Part II. Methods of Obtaining Data at the Nursery School

Time and place of observations. Observations were made at the Spartan Cooperative Nursery School and the College Nursery School, both located on the Michigan State College campus. Observations were made Monday, Wednesday, and Friday mornings from nine to ten o'clock at the College Nursery School, and at the Spartan Nursery School from one-thirty to two-thirty o'clock in the afternoons of the same days.

Observations were made during the indoor free play period. This period was chosen because at this time adult direction was at a minimum. The children largely initiated their own activities and were allowed considerable freedom in choice of play materials and companions.

Most of the activities of the Spartan group were carried on in one large playroom. It was possible to observe all types of activities from behind an observation screen. The college nursery school children had free access to two separate rooms. Observations were made in the room in which the most dramatic play was located (doll corner and block area). According to

Green,³⁹ and also Hulson,⁴⁰ these activities are more conducive to social play than crayoning, books and painting--the activities which were carried on in the second play room.

At the College Nursery School the observer sat on a chair located in the room. A location so close to the children made it possible to record their activities more accurately. However, although the chair was located in as inconspicuous a position as possible, the children frequently approached and talked to the observer.

Subjects. Children of the older group at the College Nursery School and children of the afternoon group of the Spartan Nursery School were subjects of the study. These two groups were selected because their members were all at least three and one-half years old at the beginning of the study, hence took part in enough cooperative play to display leadership behavior.

³⁹ E. H. Green, "Friendships and Quarrels Among Pre-school Children," Child Development, 4 (1933), 237-52.

⁴⁰ E. L. Hulson, "An Analysis of the Free Play of Ten Four Year Old Children Through Consecutive Observations," Journal of Juvenile Research, 14 (1930), 188-208.

All children in both groups were observed--a total of 25 children. It was not possible, even after extended observations, to record the fifty leadership contacts for a few of these children. It was felt that at least fifty instances of leadership should be observed for each child, so these children were not included in the study. A total of twenty children exhibited enough leadership to be included. Of these, twelve were girls and eight were boys. These children ranged in age from three years and nine months to five years, at the midpoint of the time observations were made. The average age for the Spartan group at the midpoint of the study was four years and nine months--somewhat higher than the average for the college group which was only four years and two months.

Most of the children of the College Nursery School came from families in which the parents held professional positions. A majority of the parents were on the staff at Michigan State College. All the parents of the Spartan Nursery School children were graduate or undergraduate students at the college.

All but one of the College Nursery School children had been in attendance at least part of the preceding school year. That one child had attended a summer session at an earlier

date. Hence, the children were well adjusted to the nursery-school environment and well acquainted with one another. Only five of the Spartan Nursery School children had previous nursery school experience, all of these having attended the Spartan school. Several of the children were acquainted outside of the nursery school. This was more true of the Spartan children than of those in the college group, since most of the families lived in the college housing project.

Methods of recording behavior. Since the purpose of the observations was to study the methods of leadership these young children used, not necessarily to determine the relative degree of leadership exhibited by them, it was desired to record as many leadership contacts as possible for as many children as possible. Preliminary observations were made using time sampling; that is, observing each child for a specified short period of time. It was found that this method would eliminate from the study many of those children who led infrequently. If observations had been continued in this manner, such a small number of leadership contacts would have been recorded for some children that it would have been difficult to make conclusions concerning the relative frequency of use of the different methods.

As was pointed out in the review of literature, all children lead at certain times and in certain situations. It was found that by putting observations on a selective rather than a random basis, a greater number of children could be included. The observer, during the free-play period, either surveyed the entire group present or concentrated on subgroups, recording leadership contacts as they occurred. An attempt was made to record at least five, and not more than eight, leadership contacts for any one child during any one observation period. This range was based on the average number of leadership contacts recorded in fifteen-minute intervals during preliminary observations. A minimum total of fifty contacts was recorded for each child.

Observation records. A coded observational recording method was chosen in preference to the diary record because it was considerably less time-consuming. Further advantages are pointed out by Berne:⁴¹

Since the judgment of the observer as to the classification of each bit of behavior is made while the behavior remains in the total situation of which it is a part, less error in classification is made than in the analysis of

⁴¹ Berne, op. cit.

diaries. The method of obtaining data on a record blank is systematic and objective; hence the data may be used by persons of varied interests.

The chief criticism seems to be that observation records are selective, only parts of the total situation being recorded.

However, Thomas⁴² points out that this is also true of the diary record to a certain extent.

These (diary records) are often very illuminating behavior documents but they present certain difficulties as material for scientific analysis Due to the tremendous complexity of any social behavior act and the consequent recording of different elements of these complex acts at different times . . . even at their objective best, the selection and emphasis are more or less dependent upon the recorder.

Bott's⁴³ experiences corroborate this judgment insofar as selectivity of observers and consequent lowering of reliability are concerned. She points out that short of mechanical means --photo- or phono-graphic--it is impossible to make even an approximately complete record of a child's behavior. An

⁴² D. S. Thomas and associates, "Some New Techniques for Studying Social Behavior," Child Development Monographs, No. 1. Bureau of Publications, Teachers College, Columbia, Mo. (1929), 203.

⁴³ H. McM. Bott, Method in the Social Studies of Young Children (Toronto: University of Toronto Press, 1934), 139.

additional danger of diary recording which Bott suggests is that observers may be biased in favor of one or another form of activity; for example, one may magnify material contacts where another will record social activity in greater detail.

Experimentation was carried on with various types of record forms in order to determine the most suitable form for the purpose. Columns were provided for recording the name of the child initiating the contact, the name of the child contacted, the mode of contact, the response, and additional descriptive information which might be valuable in understanding the situation (as the remarks of the children, their attitudes, or the materials with which they were playing). A copy of this form is found in the appendix.

Code for leadership and response. Convenience and accuracy in recording is aided by the selection of suitable symbols to represent the categories of behavior to be observed.

The commonest code is the use of letters, abbreviations, or numbers for proper names or categories. Such codes have been

used satisfactorily by a variety of investigators.^{44,45,46,47,48}

These symbols can be readily memorized and readily transcribed, freeing the observer to a considerable extent for closer and more continuous observation of the child.

No standardized set of symbols is as yet available, so the investigator established a code as follows:

Code for leadership contacts:

- P - Direct physical force
- T - Threats, threatening commands or gestures
- C - Commands
- S - Invitation, suggestion, and request
- B - Bargaining or reasoning

⁴⁴ Ibid.

⁴⁵ Chittenden, op. cit.

⁴⁶ E. I. Grant, "The Effect of Certain Factors in the Home Environment Upon Child Behavior," Iowa University Studies in Child Welfare, 17 (1939), 61-94.

⁴⁷ A. M. Loomis, "A Technique for Observing the Social Behavior of Nursery School Children," Child Development Monographs, No. 5. Bureau of Publications, Teachers College, Columbia, Mo. (1931), 20.

⁴⁸ H. Mallay, "A Study of Some of the Techniques of Successful Social Contacts at the Preschool Level," Journal of Genetic Psychology, 47 (1935), 431-57.

Five Code for response:

- R - Active resistance
- PR - Passive resistance
- Su - Acceptance or submission
- Co - Cooperative response
- 0 - No response

Records obtained for each child. A minimum of fifty contacts were recorded for each child. The average number of contacts per child was 68, with a range of from 52 to 103. Observations were begun on October 22, 1951, and continued until February 11, 1952.

Determining validity of data. An attempt was made to establish the validity of the data by correlating the results of the nursery-school observations with the ratings of the two teachers from each school who supervised the children throughout the term. These teachers were asked to rate the individual children in the group on the degree to which the children used the various leadership techniques. They rated the children in relation to the group in general, rather than in relation to specific children. The teachers checked on a five-point scale the relative frequency with which they believed the children used the same

five techniques of leadership which were noted in the observation periods. A copy of the rating form is included in the appendix.

The head teacher and a student teacher rated the College Nursery School children. The head teacher had ten years of experience with nursery-age children and had previously used rating scales, although not with preschool children. The student teacher had only one term of continuous experience in the nursery school. She had not previously used rating scales except in a very limited way in a child-development course. Both teachers had been acquainted with the children studied only through the term during which the study was conducted.

The two raters of the Spartan group were full-time teachers who had worked with the group during the term in which the study was conducted. They had previous acquaintance with several children. They had three and five years of experience as nursery-school teachers, and both had used rating scales, although not recently.

Part III. Method of Home Interviewing

Development of the interview questionnaire. It was necessary to develop some means of ascertaining the leadership

techniques used by the child and his companions in the home situation. Direct observation of the child in the home was not feasible. The presence of the observer would undoubtedly have influenced the child's behavior and the time required was prohibitive. It was decided, therefore, to get the information from the parents, who presumably observed the child's play from day to day.

Experimentation was carried on with a variety of questionnaire forms, and a rating scale was devised. This rating scale was sent out to mothers of the faculty nursery school group (a third nursery school located on the campus). On the basis of the responses and suggestions made by this group the final form was established.

The interview questionnaire. The behavior items on this questionnaire were the same as those recorded in nursery-school observations, and on which the children were rated by their teachers. To aid the parents in estimating the frequency with which the child exhibited these types of behavior, a frequency scale was developed. A copy of this form is included in the appendix.

The rating-scale method was used both in the parent interviews and to obtain the teachers' opinions, with full realization of its many drawbacks. Rating scales, although in use for many years, have been viewed with considerable distrust. Many investigators question the reliability and validity of rating methods and use them only as a last resort; others contend that at least some of the unreliability of the rating scale can be traced to the fact that ratings have been used largely in attempting to measure the more difficult and elusive variables for which objective techniques are impossible.

Rating scales in general are discussed in May and Hartshorne⁴⁹ and in Watson.⁵⁰ Weiss⁵¹ discusses ratings with particular reference to the field of child development. While no attempt will be made here to review thoroughly the advantages

⁴⁹ M. A. May and H. Hartshorne, "Recent Improvements in Devices for Rating Character," Journal of Social Psychology, 1 (1930), 66-77.

⁵⁰ G. B. Watson, "A Supplementary Review of Measures of Personality Traits," Journal of Educational Psychology, 18 (1927), 73-87.

⁵¹ L. A. Weiss, "Rating Scales with Special Reference to the Field of Child Development," Psychology Bulletin, 30 (1933), 185-208.

and disadvantages of rating scales, a few of the common pitfalls will be pointed out and some indication given as to precautions taken in this study.

1. Difficulties related to judges: One of the more common difficulties results from having different judges prepare ratings on the same trait. They may not all agree on what is meant by a trait, or may have different ideas as to the averages or extremes of any rating scale. Background of training, and experience with young children, as well as standards of judgment may vary from one individual to another.
 - a. Many authors suggest the use of several judges as a means of overcoming this difficulty.^{52,53} In this study, two ratings were obtained on each child from his teachers, and four individuals judged his and his companions' home behavior.
 - b. An attempt was made to standardize the ways of interpreting the various divisions on the frequency scale by suggesting the percentages covered by each point on the scale.
 - c. As suggested by Hollingsworth,⁵⁴ the parents were encouraged whenever possible to relate actual

⁵² D. G. Paterson, "Methods of Rating Human Qualities," Annals American Academy of Political and Social Science, 110 (1923), 81-93.

⁵³ H. Rugg, "Is the Rating of Human Character Practicable?" Journal of Educational Psychology, 12 (1921), 425-38, 485-501.

⁵⁴ H. L. Hollingsworth, Judging Human Character (New York: D. Appleton Co., 1928), 268.

incidents on which they based their judgments. If they expressed uncertainty, note was made of this.

2. Difficulties arising from the scale itself: Another common failing is inadequate preparation of the rating scale so that it is ambiguous or confusing.
 - a. Care was taken to group together into broader categories only such types of behavior as were closely related. That relationship was further explained during the interview if necessary.
 - b. Each item or category of behavior was defined as clearly as possible. Synonyms or a descriptive phrase accompanied each category, and further verbal explanation was given during the interview.
 - c. An attempt was made to set up a frequency scale which would have enough divisions to prevent bunching and yet not so many divisions as to confuse the raters. Authorities vary in their opinion on the number of acceptable divisions. The range is usually from three to nine, with a mean of five.^{55,56,57} In this study a five-point scale was used, the points on the scale being: rarely if ever, occasionally, as often as not, usually, and almost always.
3. Difficulties in the manner of rating: A third common criticism is that in the use of ratings, people are influenced by what is called the "halo effect." By this is

⁵⁵ E. S. Conklin, The Scale of Values Method for Studies in Genetic Psychology (University of Oregon Publication, 2, No. 1, 1923), 56.

⁵⁶ Max Freyd, "The Graphic Rating Scale," Journal of Educational Psychology, 14 (1923), 83-102.

⁵⁷ Hulson, op. cit.

meant that the raters tend to overestimate their own good qualities or those of their friends. This could certainly be expected in parents' ratings of their own children. In a study of Merrill Palmer by Roberts and Ball,⁵⁸ parents were found to rate their children higher on leadership ability than did the nursery-school teachers.

- a. Realizing this tendency, the term "leadership" was not used on the questionnaire or during the interview. Instead, the behavior items were introduced as methods by which one child may attempt to get another to do as he wishes; e.g., to play a certain game, to share play materials, to assume a certain role.
- b. Parents rated their child in relation to specific children, which may also have helped reduce the halo effect.

Persons from whom ratings were obtained. The mothers of the nursery-school children were asked to rate their child in relation to each of his three most frequent companions. A rating was also obtained from the mothers of each of these companions. In this way, two ratings were obtained on each pair of children. If one or more of the companions were siblings, the second rating was obtained from some other adult family member, usually the father.

⁵⁸ K. E. Roberts and R. S. Ball, "A Study of Personality in Young Children by Means of a Series of Rating Scales," Journal of Genetic Psychology, 52 (1938), 119.

Arrangements for interview. Whenever possible, the parents were interviewed directly, rather than having the questionnaire mailed to them. It was felt that the parents' interest and confidence might more easily be won in a face-to-face relationship, and that the immediate and spontaneous response given in an interview might be more objective than a pondered reply. It was hoped that in discussing the child's behavior, additional comments might be made by the parents which would be helpful in understanding the child.

The parents of the College Nursery School children were introduced to the study during a parents' meeting a few weeks prior to the time appointments were made. Notes were sent out to the Spartan Nursery School parents by the staff, explaining that they might be asked to cooperate in the study.

The appointments were made by telephone. During the telephone conversation, the general nature of the study was explained briefly, and the cooperation of the parents asked in supplying information on the child's play with companions at home. It was suggested that the children not be present during the interview because of the nature of the questions.

Most of the interviews took place in the home where more privacy was possible; a few took place outside the home.

Procedure during interviews. The interviews usually began with an informal visit which put the parent at ease and permitted the parent and investigator to become somewhat acquainted before any questions were asked.

The behavior categories on the questionnaire were explained and illustrated, as was the frequency scale. Typical responses were suggested. Once the parents felt they understood what information was expected, the investigator read each item of behavior and marked its estimated frequency and the usual response of the other child. Some miscellaneous comments were jotted down during the interview.

In cases where two parents were interviewed simultaneously, the same procedure was followed except that the parents checked a questionnaire, rather than responding verbally.

The first interview took place on Wednesday, October 31, 1951, and the last, on February 22, 1952. In all, eighty interviews were held. The interviews with the parents took an average of 45 minutes; those with the companion's parents took an average of 15 minutes.

The parents were very cooperative and friendly. In the investigator's opinion, they were as objective as possible and most made an attempt to honestly assess the child's behavior, even though they recognized that some of the behavior categories were less desirable than others. Although the term "leadership" did not appear on the questionnaire, many of the parents recognized the behavior as such.

Method of treating data. To compare the child's leadership behavior as observed in the nursery school to the leadership behavior of the child and his frequent companions in the home environment, Spearman's Rank Correlation method was used. The order of the frequency with which the five method-categories were used during the nursery-school observations was compared to the ranking of these categories according to their frequency of use by (1) the child himself toward frequent home companions and (2) those companions in dealing with the child.

In case of ties in rank, the mid-rank method of assigning ranks was used. A rank equal to that of the middle of the tie was assigned to all behavior categories which received identical rankings.

The Spearman formula for rank correlations is:⁵⁹

$$\rho = 1 - [6(\sum d)^2] / [N(N^2 - 1)]$$

The standard error of the coefficient of rank correlation was determined by the formula:

$$\sigma_{\rho} = [(1 - \rho^2) / \sqrt{N}] [1 + 0.086\rho^2 + 0.013\rho^4 + 0.002\rho^6]$$

A correlation coefficient of twice the standard error was considered significant.

The rank correlation was also used to determine the relationship between the degree of diplomacy and over-all success of leadership attempts in the nursery school.

⁵⁹ W. J. Dixon and F. J. Massey, Jr., Introduction to Statistical Analysis (New York: McGraw-Hill Book Co., Inc., 1951), 260.

CHAPTER IV

FINDINGS FROM DATA

In this study of leadership, of how children influence one another's actions and thoughts, observations were made in the nursery school to determine what methods of leadership were used by individual children and the group as a whole. The summary and analysis of these observations are discussed in Parts I and II of this chapter. In Part I, the frequency of occurrence of the five leadership method-categories is discussed. In Part II, the relationship between the frequency with which the leadership methods are used and the success of these methods is considered.

Part III is concerned with the comparison of the leadership techniques used in the nursery school and those which the child and his contemporaries used in the home environment. In Part IV are discussed the ratings of the children's leadership behavior by their teachers.

Part I. Leadership Methods Used in the Nursery School

It should be kept in mind in reading this discussion of findings from nursery-school observations that only indoor play was observed. Also, the age range was very limited. Some differences in the relative frequency of use of the leadership methods might be expected to be found if outdoor activities were included, and if younger as well as older preschool children had been included.

Summary of methods used by all subjects. The number and percent of the leadership contacts of each child which fell in each of the method-categories, Physical Force, Verbal Force, Commands, Invitation-suggestion and Bargaining-reasoning were determined. These results are summarized in Table I for the College Nursery School, Table II for the Spartan Nursery School. The combined results of the two schools are presented graphically in Figure 1.

Leadership contacts classified as Invitation-suggestion constituted from 28.6 to 70.2 percent of all contacts of individual children. The average use of this method was 48.1 percent--almost one-half of all contacts. Fifteen of the subjects used

TABLE I

USE OF FIVE LEADERSHIP METHOD-CATEGORIES BY
COLLEGE NURSERY SCHOOL CHILDREN

Child	Total Number Contacts	Physical Force		Verbal Force		Commands		Invitation- suggestion		Bargaining- reasoning	
		No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
A	84	5	6.0	4	4.8	13	15.5	59	70.2	3	3.6
B	61	1	1.6	2	3.3	12	19.7	40	65.6	6	9.8
C	63	2	3.2	10	15.9	32	50.8	18	28.6	1	1.6
D	59	2	3.4	0	0.0	13	22.0	37	62.7	7	11.9
E	72	2	2.8	9	11.1	20	27.8	36	50.0	5	6.9
F*	87	2	2.3	2	2.3	18	20.7	55	63.2	19	17.5
G*	95	6	6.3	14	14.8	35	36.8	30	31.5	10	10.5
H*	84	4	4.8	2	2.4	34	40.5	35	41.7	9	10.7
I*	55	5	9.1	9	16.4	20	36.4	21	38.2	0	0.0
J*	67	3	4.5	2	3.0	29	43.3	28	41.9	5	7.5
Total No.											
and Avg.	727	32	4.4	54	7.4	226	31.3	359	49.4	56	7.4
Percent**											

* Indicates boys in group.

** The average percent in Tables I and II was arrived at by adding all of the percentages in each column and dividing by 10, the number of figures. This method was used so that each child would contribute equally to the results; that is, child G, for whom a greater total number of contacts were recorded, would influence the results no more than child I, for whom fewer contacts were recorded.

TABLE II

USE OF FIVE LEADERSHIP METHOD-CATEGORIES BY
SPARTAN NURSERY SCHOOL CHILDREN

Child	Total Number Contacts	Physical Force		Verbal Force		Commands		Invitation- suggestion		Bargaining- reasoning	
		No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
K	57	4	7.0	1	1.6	17	29.8	34	59.7	1	1.6
L*	64	5	7.8	0	0.0	31	48.4	28	43.8	0	0.0
M*	56	3	5.4	0	0.0	23	41.1	30	53.6	0	0.0
N	52	5	9.6	0	0.0	26	50.0	21	40.4	0	0.0
O*	58	13	22.4	0	0.0	20	34.5	23	39.7	2	3.5
P	56	7	12.5	1	1.8	27	48.2	21	37.5	0	0.0
Q	103	11	10.7	0	0.0	35	34.0	51	49.5	6	5.8
R	71	4	5.6	0	0.0	29	40.8	35	49.3	3	4.2
S	59	7	11.9	0	0.0	24	40.7	27	45.8	1	1.7
T	70	10	14.3	1	1.4	19	27.1	38	54.3	2	2.9
Total No. and Avg. Percent**	646	67	11.0	3	0.4	251	40.0	308	46.9	15	1.7

* Indicates boys in group.

** The average percent in Tables I and II was arrived at by adding all of the percents in each column and dividing by 10, the number of figures. This method was used so that each child would contribute equally to the results; that is, child Q, for whom a greater total number of contacts were recorded, would influence the results no more than child N, for whom fewer contacts were recorded.

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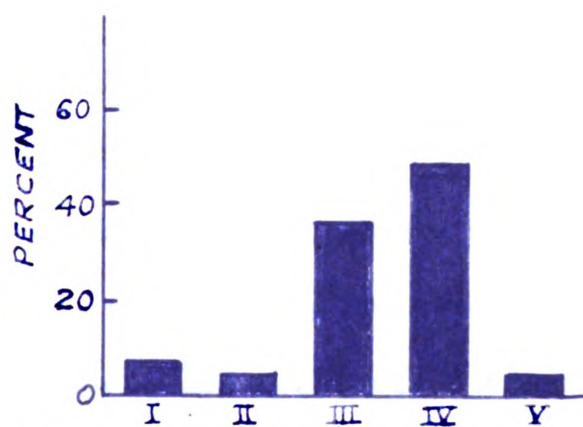


FIG. 1 - USE OF LEADERSHIP METHODS
BY ALL SUBJECTS

this method more frequently than any other; five subjects used it second most frequently.

From 15.6 to 50.8 percent of all contacts were classified as Commands, the average use being 35.7 percent--better than one-third of all contacts. Five of the subjects used commands more frequently than Invitation-suggestion; the remaining fifteen used commands second most frequently. This agrees with the findings of Wells⁶⁰ that suggestions were more generally used by most children than directions (commands).

Invitation-suggestion and Commands combined accounted for 83.7 percent of all leadership contacts, almost six times the total percent of the other three categories combined.

Use of Physical Force ranged from 1.6 to 22.4 percent, averaging 7.2 percent, a very low percentage in comparison to Invitation-suggestion and Commands. If younger children had been included in this study, this figure might have been expected to be higher. Jersild and Markey⁶¹ pointed out in a study of

⁶⁰ Wells, op. cit.

⁶¹ A. T. Jersild and F. V. Markey, "Conflicts Between Preschool Children," Child Development Monographs, No. 20. Bureau of Publications, Teachers College, Columbia, Mo. (1935), 356.

children's quarrels that there is a decline in hitting and other forms of physical force and an increase in the use of language as children grow older.

Verbal Force was not used by some children, but was used as high as 16.4 percent of the time by one child. The average use of Verbal Force was 3.9 percent. Likewise, Bargaining-reasoning was not used by some children, was used as high as 11.9 percent by others, averaging 4.5 percent. Bargaining-reasoning and Verbal Force, combined, average only slightly greater usage than Physical Force.

From the brief descriptions made of the situations in which the leadership contacts occurred, it would seem that Invitation-suggestion and Commands were for the most part the primary leadership approaches. When these methods failed, Verbal Force, Physical Force, or Bargaining-reasoning were resorted to. The following examples recorded during observations illustrate this point. In the first example, the child suggested, used Physical Force, and finally bargained. In the second example, the child suggested, commanded, reasoned, and finally threatened.

-1-

- G: "Come on over and play with me. See, I'm building a garage."
 H: "No, I'm playing with the train."
 G: (tries to take train from H)
 H: (resists)
 G: "You can have your train in my garage. OK?"

-2-

- E: "Your building is high enough, don't you think?"
 B: (ignores)
 E: "Move your building over, B."
 B: (continues to ignore her)
 E: "If you want to make a high building make it over there because I don't want it to fall on mine."
 B: (waves block threateningly at E)
 E: "You move it over or I'll knock it down."

Comparison of girls and boys as to methods used. The leadership patterns of the boys and girls showed some slight differences, although these differences were not statistically significant (as determined by the χ^2 test). The average percentages of leadership contacts falling in each method-category for the boys and for the girls is found in Figure 2. The boys used slightly more physical force than the girls. Green,⁶²

⁶² Green, op. cit.

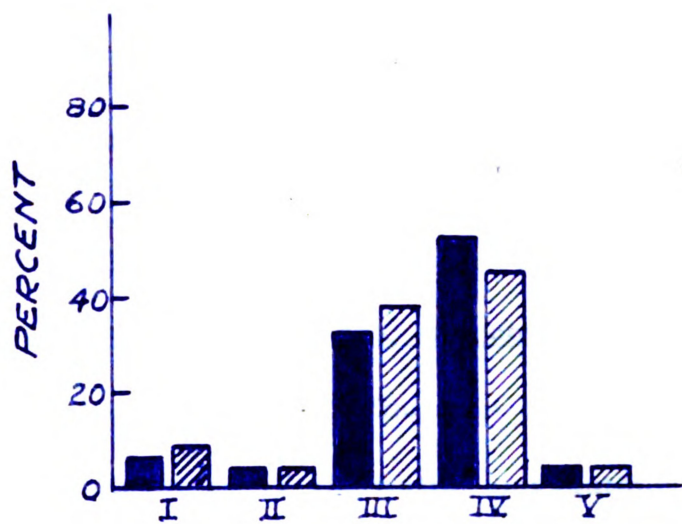


FIG. 2 - COMPARISON OF USE OF METHODS BY GIRLS & BOYS

■ GIRLS

▨ BOYS

Appel,⁶³ and Jersild⁶⁴ all agreed that boys are more aggressive and resort to physical force more frequently than girls. Girls, they found, relied on the use of language to a greater extent. This difference may possibly be due to the superior language ability or the lesser size and strength of the girls. It may be, too, that they were beginning to feel the necessity of being "ladylike." Boys used a higher proportion of Commands and a slightly lower proportion of Invitation-suggestion. Differences in the use of Verbal Force and Bargaining-reasoning were negligible.

Degree to which diplomatic and nondiplomatic methods were used. According to the definitions of most authors, leadership method-categories IV (Invitation-suggestion) and V (Bargaining-reasoning) would be considered to be of a more diplomatic nature than the remaining three categories, I (Physical Force), II (Verbal Force), and III (Commands). In Table III the

⁶³ M. H. Appel, "Aggressive Behavior of Nursery School Children and Adult Procedures in Dealing with Such Behavior," Journal of Experimental Education, 11 (1942), 185-99.

⁶⁴ Jersild, op. cit.

TABLE III

DEGREE TO WHICH DIPLOMATIC AND NONDIPLOMATIC
METHODS WERE USED IN NURSERY SCHOOL

College Nursery School		Spartan Nursery School	
Child	Percent Diplomatic Contacts	Child	Percent Diplomatic Contacts
A	73.8	K	61.4
B	75.4	L*	43.8
C	30.2	M*	53.6
D	74.6	N	40.4
E	56.9	O*	43.1
F*	74.7	P	37.5
G*	42.1	Q	55.3
H*	52.4	R	53.5
I*	38.2	S	47.5
J*	49.4	T	57.1
Avg. pct. each group	56.8		49.3

* Indicates boys in group.

percentages of each child's leadership contacts falling in Categories IV and V are totaled. It was found that the average use of these methods was 53.1 percent, as compared to 46.9 percent for Categories I, II, and III. The greatest degree of diplomacy,

75.4 percent, was used by child B. The smallest degree of diplomatic methods, 30.2 percent, was used by child C.

These findings do not bear out the statements quoted earlier by Pigor⁶⁵ and Hurlock⁶⁶ that in early childhood children lead in a dominating and tyrannical manner with little consideration for their fellows.

The girls on the average were somewhat more diplomatic than the boys. Categories IV and V accounted for 55.3 percent of their leadership contacts, as compared to 49.6 percent for the boys. This is in opposition to the findings of H. H. Anderson.⁶⁷ Anderson found that boys used a higher degree of integrative behavior (which included the more diplomatic approaches), and that girls used a higher degree of dominative behavior (which included the nondiplomatic approaches).

Use of different leadership methods toward boys and girls.

In Table IV is listed the average percent of each leadership

⁶⁵ Pigor, op. cit.

⁶⁶ Hurlock, Child Development, op. cit.

⁶⁷ H. H. Anderson, op. cit.

TABLE IV
AVERAGE PERCENT OF LEADERSHIP METHODS DIRECTED
TOWARD BOYS AND GIRLS

Methods of Leadership	Avg. Pct. Used by All Children to Lead		Avg. Pct. Used by Girls to Lead		Avg. Pct. Used by Boys to Lead	
	Boys	Girls	Boys	Girls	Boys	Girls
I. Physical Force	6.5	8.5	5.6	7.2	7.4	9.8
II. Verbal Force	4.5	2.8	3.4	3.2	5.6	2.4
III. Commands	38.1	35.4	40.6	32.8	35.7	38.7
IV. Invitation- suggestion	45.8	48.6	45.6	53.5	46.1	43.7
V. Bargaining- reasoning	4.8	4.5	4.4	3.8	4.3	5.1

method directed toward boys and toward girls, by all subjects, by girls and by boys. Both girls and boys directed more physical force toward girls than toward boys, perhaps because boys are more aggressive and have a greater tendency to retaliate.^{68,69}

⁶⁸ Appel, *op. cit.*

⁶⁹ Jersild and Markey, *op. cit.*

Verbal Force was used a higher percentage of the time toward boys by both boys and girls. This method may serve as a substitute for Physical Force when dealing with boys.

Boys used slightly more Commands and less Invitation-suggestion toward girls, and were somewhat more diplomatic in their relationship with other boys. Similarly, girls used slightly more Commands and less Invitation-suggestion in their relationships with boys and averaged greater diplomacy in their dealings with other girls. This greater diplomacy toward same sex companions may be a reflection of the tendency mentioned by Koch,⁷⁰ for even preschool children to show some preference for companions of their own sex.

Comparison of Spartan and College Nursery School groups.

There was sufficient difference between the two nursery-school groups to warrant a comparison of the results in each case. Such a comparison is found in Figure 3.

More Physical Force was used by the Spartan Nursery School children (11.1 percent), as compared to the College Nursery

⁷⁰ H. L. Koch, "A Study of Some Factors Conditioning the Social Distance Between the Sexes," Journal of Social Psychology, 20 (1944), 79.

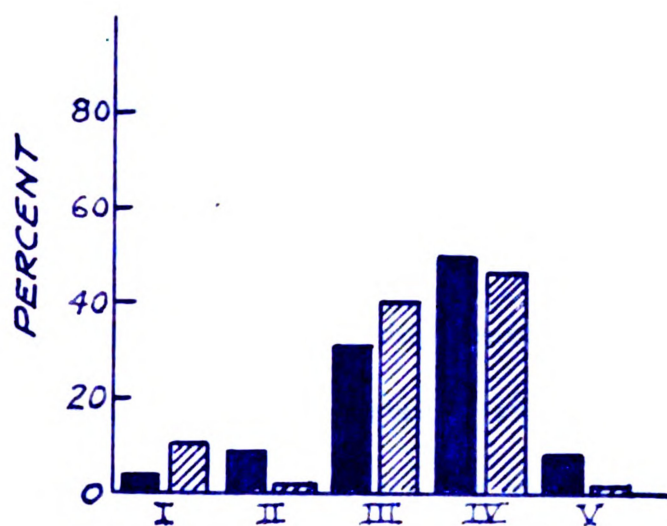


FIG. 3 - COMPARISON OF USE OF
METHODS BY SPARTAN & COLLEGE
NURSERY SCHOOL CHILDREN
■ COLLEGE NURSERY SCHOOL
▨ SPARTAN NURSERY SCHOOL

School children (4.4 percent)--this despite the fact that there were fewer boys in the Spartan group. The Spartan children used almost no Verbal Force, the College children used 7.4 percent. Less Bargaining-reasoning was observed in the Spartan group (1.7 percent, as compared to 7.4 percent). More leadership contacts were of a directing or commanding order and somewhat fewer fell into the classification of Invitation-suggestion.

The difference in the use of Physical Force can be explained in part by the differences in the physical plants of the two schools. The Spartan Nursery School playroom was equipped with some play materials (as horizontal ladder, large blocks, and boxes) which were more conducive to active play. In the College Nursery School, the observed activities were of a less active sort, consisting principally of doll-corner play and block building.

The degree of acquaintance among group members is another factor which may be responsible for differences in the use of Verbal Force and Bargaining-reasoning as well as Physical force. While most of the College Nursery School children had been together in nursery school the previous year, the

Spartan children were less well acquainted, and the nursery-school situation was new to many of them. Jersild⁷¹ pointed out that at any stage of growth when a child encounters a new social situation his first tentative approaches may roughly reproduce the sequence noted in his early behavior before he feels at home with his new associates. Much of the activity of individual children in the Spartan Nursery School was of a parallel or onlooker type. Both these types of social activity are more characteristic of younger preschool children according to Parten's study.⁷² She found that after the third year parallel and onlooker behavior were largely replaced by assertive group play and organized cooperative play. What cooperative activity was observed in the Spartan Nursery School was of relatively short duration. However, as the term progressed and the children became better acquainted, cooperative play seemed to be on the increase.

Leadership attempts were for the most part designed to gain or retain possession of play materials, or to demonstrate

⁷¹ Jersild, op. cit.

⁷² Parten, op. cit.

possible use of play materials. Commands, Invitation-suggestion, and occasionally Physical Force were used in these contacts. If unsuccessful, the children tended to give up or to consult an adult rather than using threats or Bargaining-reasoning, as was done by the College Nursery School children. This greater tendency to turn to adults may have been because of the presence of parents as teachers. The Spartan Nursery School is a cooperative nursery school, and in addition to the two staff teachers a parent was always present. As a consequence there seemed to be a closer relationship between the children and the adults, the parent-teachers tending to take a more active part in the children's play.

Leadership patterns of children who directed most of leadership attempts toward a single child. From the summaries of Tables V and VI it was found that while all children attempted to influence the behavior and actions of many children, a few directed most of their leadership attempts toward a single child. This was true of children B, G*, and H* of the College Nursery School group and children L*, N, O*, Q, and S in the Spartan Nursery School group.

TABLE V

PERCENT OF EACH CHILD'S LEADERSHIP ATTEMPTS DIRECTED TOWARD OTHER
CHILDREN IN THE GROUP: COLLEGE NURSERY SCHOOL

Child	Children Contacts Directed Toward											
	A	B	C	D	E	F*	G*	H*	I*	J*	Y*	Z*
A		13.1	2.4	8.3	6.0	4.8	9.5	1.2	22.6	-	29.8	-
B	14.8		-	11.5	14.8	36.1	-	6.5	9.8	4.9	1.6	-
C	4.8	15.9		19.0	25.4	15.9	1.6	11.1	1.6	-	6.4	-
D	17.0	20.3	6.8		-	30.5	-	-	10.2	1.7	10.2	-
E	20.8	29.2	4.2	5.5		13.9	4.2	8.3	1.0	2.7	9.7	-
F*	-	24.1	14.9	21.8	3.5		6.9	11.5	-	17.2	-	-
G*	12.6	7.4	3.2	3.2	2.1	18.9		38.9	2.1	10.5	-	-
H*	3.6	3.6	7.1	6.0	1.2	21.4	7.1		6.0	41.7	2.4	-
I*	9.1	9.1	-	14.5	-	5.4	1.8	7.3		3.7	36.4	14.5
J*	-	7.5	1.5	3.0	1.5	22.4	11.9	28.4	10.4		4.5	-

* Indicates boys in group.

Y, Z: Other children in group who, because of irregular attendance or lack of leadership behavior, were not included in analysis of methods.

TABLE VI

PERCENT OF EACH CHILD'S LEADERSHIP ATTEMPTS DIRECTED TOWARD OTHER
CHILDREN IN THE GROUP: SPARTAN NURSERY SCHOOL

Child	Children Contacts Directed Toward													
	K	L*	M*	N	O*	P	Q	R	S	T	U*	V	W	X
K		-	-	3.5	19.3	15.8	7.0	5.3	1.8	12.3	-	-	14.0	1.8
L*	3.1		40.6	4.7	9.4	-	-	3.1	6.2	18.7	4.7	3.1	3.1	-
M*	1.8	10.7		-	28.5	-	3.6	7.1	17.9	3.6	8.9	1.8	10.7	-
N	-	1.9	-		3.8	44.3	5.8	3.8	9.6	11.5	5.8	1.9	9.6	-
O*	3.5	-	32.8	3.5		1.7	5.2	17.2	1.7	8.6	13.8	-	5.2	-
P	12.5	1.8	3.6	16.1	-		17.8	3.6	12.5	19.6	3.6	1.8	1.8	-
Q	1.0	-	3.9	1.9	2.9	3.9		1.0	68.0	7.8	7.8	2.9	1.0	5.3
R	1.4	-	19.7	4.2	28.2	5.6	2.8		8.5	11.3	2.8	8.5	4.2	-
S	3.4	6.8	1.7	1.7	1.7	8.5	49.1	3.4		6.8	15.3	-	3.4	-
T	10.0	5.7	2.9	12.9	10.0	21.4	11.4	2.9	7.1		-	-	12.9	5.7

* Indicates boys in group.

U, V, W, X: Other children in group who, because of irregular attendance or lack of leadership behavior, were not included in analysis of methods.

In Table VII the average leadership pattern of these children is compared to the average pattern of the other children who distributed their leadership efforts more uniformly throughout the group. There were slight differences in the direction of greater use of Physical Force, Verbal Force and Commands among the group who directed most of their leadership efforts toward one child. The incidence of Bargaining-reasoning and Invitation-suggestion is lower for this group.

These children used a high percentage of nondiplomatic methods toward all children, not just toward their one frequent companion. They were on the average no more successful in the use of nondiplomatic methods toward the frequent companion than toward other companions. This would seem to indicate that the leadership pattern was not so much a result of the relationship with the one child, as the direction of leadership efforts toward one child was a result of the leadership pattern. The needs of these children seemed in some way to be satisfied by establishing a close and dominant relationship with another child.

TABLE VII

COMPARISON OF NURSERY SCHOOL LEADERSHIP PATTERNS
OF CHILDREN WHO LED PRINCIPALLY ONE OTHER
CHILD AND THOSE WHO LED MANY CHILDREN

Methods of Leadership	Percent Distribution for Children Who Led	
	Principally One Child	Many Children
I. Physical Force	9.4	6.7
II. Verbal Force	4.1	3.8
III. Commands	37.9	33.4
IV. Invitation-suggestion	45.1	51.9
V. Bargaining-reasoning	3.6	4.7

Part II. Relationship Between the Frequency With Which
Leadership Methods Were Used in the Nursery School
and the Success of These Methods

Success of the different leadership techniques. The over-
all success of each child and the success with which each child
used the individual leadership categories is presented in Table
VIII. For all twenty subjects combined, Invitation-suggestion
was the most successful, followed by Bargaining-reasoning,
Commands, Verbal Force, and Physical Force. This order of
success was true without exception for the Spartan Nursery
School group. Bargaining-reasoning was the most successful

TABLE VII

OVER-ALL PERCENT OF SUCCESS OF LEADERSHIP CONTACTS AND SUCCESS OF
INDIVIDUAL LEADERSHIP CATEGORIES: ALL SUBJECTS

Child	Over-all Success	Percent Success				
		Physical Force	Verbal Force	Commands	Invitation- suggestion	Bargaining- reasoning
A	70.2	40.0	75.0	69.2	72.9	66.6
B	70.5	0.0	0.0	75.0	70.0	100.0
C	54.0	0.0	40.0	50.0	72.2	100.0
D	76.3	50.0	-	53.8	81.1	100.0
E	72.2	0.0	77.7	65.0	69.4	0.0
F*	64.4	0.0	50.0	61.1	70.8	50.0
G*	65.3	66.6	35.7	74.3	63.3	80.0
H*	82.1	50.0	50.0	82.4	82.4	100.0
I*	45.5	20.0	33.3	45.0	57.1	0.0
J*	79.1	66.6	50.0	51.7	71.4	80.0
Avg. Pct. College N. S.	68.0	29.3	45.8	62.8	66.1	67.7

TABLE VIII (Continued)

Child	Over-all Success	Percent Success				
		Physical Force	Verbal Force	Commands	Invitation- suggestion	Bargaining- reasoning
K	64.9	0.0	0.0	64.7	73.5	100.0
L*	71.9	20.0	-	74.2	78.6	0.0
M*	62.5	33.3	-	47.8	76.6	-
N	40.4	20.0	-	30.8	57.1	-
O*	37.9	0.0	-	30.0	67.8	50.0
P	48.2	14.3	0.0	66.6	38.1	-
Q	73.8	9.1	-	65.8	94.1	83.5
R	59.2	25.0	-	55.2	68.5	33.3
S	54.2	0.0	-	45.8	74.2	100.0
T	62.9	20.0	100.0	42.1	81.6	100.0
Avg. Pct. Spartan N. S.	57.6	14.2	33.3	51.8	72.0	66.7
Avg. Pct. all subj.	62.7	21.7	42.0	57.3	69.0	67.3

* Indicates boys.

- Indicates that there were no contacts of this type.

method in the College Nursery School, the rest of the behavior categories following the same order as that for all subjects.

Frequency of use of different methods as related to success. The five classes of leadership techniques were arranged in order of success as used by all subjects (see Table IX). The frequency with which each method-category was used was also indicated. Considering all subjects as a group, the frequency with which a method of leadership was used does not seem to correspond too closely to the percent to which that method was successful. The most successful method, Invitation-suggestion, was used the most frequently; the second most successful method, Bargaining-reasoning, was fourth in frequency; Commands, third in success, was second in frequency; Verbal Force, fourth in success, was fifth in frequency; and Physical Force, fifth in success, was third in frequency.

This same relationship was found in the Spartan Nursery School group when considering it separately. Considering the College Nursery School group separately, the most successful method-category, Bargaining-reasoning, was used considerably less frequently than Invitation-suggestion or Commands, which

TABLE IX

ORDER OF SUCCESS OF LEADERSHIP METHODS COMPARED TO FREQUENCY
OF USE OF THESE METHODS

Methods of Leadership	All Subjects			Spartan Nursery School			College Nursery School		
	Order Success	Order Frequency		Order Success	Order Frequency		Order Success	Order Frequency	
I. Physical Force	5	3		5	3		5	5	
II. Verbal Force	4	5		4	5		4	3	
III. Commands	3	2		3	2		3	2	
IV. Invitation-suggestion	1	1		1	1		2	1	
V. Bargaining-reasoning	2	4		2	4		1	4	

were less successful. With this exception, the methods occurred in the order of their success in this group.

Rank-order correlations were run on the rankings appearing in Table IX, and in no case was the degree of correlation found to be significant.

Two methods, Bargaining-reasoning and Physical Force, tend to be used in a frequency disproportionate to their success. The failure of the children to make use of Bargaining-reasoning may be due to a lack of patience on their part, to a lack of reasoning power, or to a lack of an awareness of the rights and feelings of others which it requires. Nonverbal leadership (Physical Force) usually constitutes a higher proportion of the leadership contacts of younger children, and its continued use despite low success may be a carry-over from the earlier level of development. The relatively high use of this method in the Spartan Nursery School raised the average figure. In the College Nursery School, Physical Force was fifth in success and frequency. Possible reasons for the greater use of Physical Force in the Spartan Nursery School were discussed in Part I.

Over-all success of leadership contacts. The average over-all success for all subjects was 62.7 percent (see Table

VIII). The most successful child, H*, averaged 82.1 percent success; the least successful child, O*, was successful in only 37.9 percent of his leadership contacts. It was found that boys and girls differed only very slightly in their percent of over-all success. The average success of the boys was 63.3 percent; the average for the girls was 62.1 percent. The two nursery schools differed in average over-all success. Average over-all success in the College Nursery School was 67.9 percent, in the Spartan Nursery School, 57.6 percent.

Over-all success as related to diplomacy of methods. It has previously been stated that children used diplomatic leadership to varying degrees. An interesting comparison, therefore, was that of the order of diplomacy and order of success among the subjects (see Table X). This comparison was made by the Spearman Rank Correlation method. A low degree of correlation was found, only 0.56 ± 0.16 . The most diplomatic children are not necessarily the most successful.

Mallay,⁷³ in a study of techniques used by preschool children to establish social contacts, concluded that success

⁷³ Mallay, op. cit.

TABLE X
RANK ORDER OF SUCCESS COMPARED TO RANK ORDER
OF DIPLOMACY OF METHODS

Child	Order of Over-all Success	Order of Diplomacy
A	8	4
B	7	1
C	16	20
D	3	3
E	5	7
F*	11	2
G*	9	16
H*	1	11
I*	18	18
J*	2	12
K	10	5
L*	6	14
M*	13	9
N	19	17
O*	20	15
P	17	19
Q	4	8
R	14	10
S	15	13
T	12	6

* Indicates boys.

seemed to depend more on the type of approach than on the individual personality pattern. She found that maladjusted and adjusted children, younger as well as older children, were

equally successful when using more skillful techniques. Findings in this study indicate that success is not independent of individual personalities. Degree of activity, resourcefulness, and pleasantness seemed as important as the techniques used. Two notable illustrations of this opinion are child H* of the College Nursery School and child L* of the Spartan Nursery School. Child H* was the most successful of all subjects, being successful 82.1 percent of his contacts, and yet he used nondiplomatic methods a higher percentage of the time than diplomatic techniques. Both of these boys had an abundance of ideas, were very active, enthusiastic, and pleasant. Their playmates accepted commands from them as readily as suggestions.

Success of different methods as used by boys and girls.

As is shown in Table XI, the boys were considerably more successful in the use of Physical Force (and as was stated earlier, used more). They were also appreciably more successful in the use of Invitation-suggestion. The girls were more successful in the use of Bargaining-reasoning. Verbal Force and Commands were used with almost equal success by either boys or girls.

TABLE XI
SUCCESS OF LEADERSHIP METHODS AS USED BY
BOYS AND GIRLS

Methods of Leadership	Average Percent Success	
	Boys	Girls
I. Physical Force	32.0	14.9
II. Verbal Force	43.8	41.8
III. Commands	57.8	56.8
IV. Invitation-suggestion	71.4	66.7
V. Bargaining-reasoning	51.4	78.3

The greater success of Physical Force when used by boys may be because they are larger or stronger and more aggressive. (No measure of these qualities was made in this study.) Boys seemed more forceful in their use of hitting or pushing. Many of the girls tended to hit and then withdraw rather than pursuing the issue to its conclusion. The boys more frequently continued to exert physical or verbal pressure until they had achieved the desired end.

The girls as a group seemed to use Bargaining-reasoning more skillfully than the boys. They gave more logical reasons, and their offers to bargain or compromise showed greater consideration for the feelings of the other child. When the girls suggested taking turns with a boy, they more often suggested that the other child have the first turn. When the girls wished to trade toys, they more frequently attempted to make the trade appear to be to the advantage of the other child (as, "This buggy is bigger, why don't you use this buggy?").

Success of different leadership methods as used toward boys and girls. The average success of the different leadership methods when used toward boys and toward girls was computed. The results appear in Table XII. In general, the boys were more receptive to leadership approaches regardless of methods used. Boys and girls were about equal in their acceptance of Commands and Invitation-suggestion, but Physical Force, Verbal Force, and Bargaining-reasoning met with considerably higher success when directed toward the boys.

In Table XII is also summarized the average success of girls and boys separately when directing the different leadership techniques toward other girls and boys. Girls were more

TABLE XII

**SUCCESS OF THE DIFFERENT LEADERSHIP METHODS
WHEN USED TOWARD BOYS AND TOWARD GIRLS**

Methods of Leadership	Average Percent Success as Used by					
	All Children to Lead		Girls to Lead		Boys to Lead	
	Boys	Girls	Boys	Girls	Boys	Girls
I. Physical Force	31.0	15.0	9.6	13.4	52.3	16.7
II. Verbal Force	64.6	19.5	66.6	39.1	45.8	0.0
III. Commands	57.5	57.4	54.2	56.3	60.7	58.5
IV. Invitation- suggestion	64.5	66.6	56.5	65.6	72.6	67.7
V. Bargaining- reasoning	75.1	64.0	67.2	87.5	80.8	40.6
	58.5	44.5	38.9	52.4	62.5	36.7

successful in the use of Commands, Bargaining-reasoning, Invitation-suggestion and Physical Force toward other girls than toward boys. Boys were considerably more successful in their contacts with boys regardless of the methods used. These

differences were greatest in the case of Physical Force, Verbal Force, and Bargaining-reasoning.

In terms of average success regardless of methods used, boys led other boys successfully 62.5 percent of the time, as compared to a 36.7-percent average in leading girls. Girls led other girls successfully 52.4 percent of the time and boys, only 38.9 percent. According to Koch,⁷⁴ there is a tendency even at preschool age for girls to prefer girls and boys to prefer boys as playmates. It is perhaps because of this greater interest in playing with own sex companions that their approaches are more frequently accepted.

Part III. Comparison of Nursery-school Leadership Behavior and the Leadership Behavior of the Child and his Frequent Companions in the Home Environment

The ratings obtained from the child's parents and the parents of his frequent companions were not validated. Their use is open to question, particularly in view of the lack of agreement between the teachers' ratings and the nursery-school

⁷⁴ Koch, op. cit.

observation results. However, the home-ratings followed more closely the general leadership pattern found in the nursery-school observations. Several factors may account for this greater agreement. The parent-rankings were obtained through direct interviewing, and the investigator may have unconsciously influenced their judgments. The home-rankings are a compilation of judgments of four individuals, while only two teachers were available to rate the child's school behavior. Parents rated their child with respect to three specific children in the home environment, while the teachers' ratings were more general. The greater number of home judges and the greater specificity of their judgments may have controlled the "halo effect" to some extent and ruled out individual discrepancies.

The acquaintance of the parent with his child is naturally of longer duration and greater intimacy. Their closer, and perhaps more interested, observation of him may have made ratings on such specific behavior items more accurate. The teachers, however interested or observant they might be, were responsible for the supervision of a group of ten to thirteen children; hence, could not focus their attention on individual children for long periods of time. Their observations may not have been

sufficient to enable them to rate such specific aspects of the child's behavior as his methods of leadership.

Because of their greater agreement with the school-observation results and because they constituted the only available measure of the child's leadership behavior in the home environment, the home-ratings were used.

Comparison of over-all leadership behavior patterns. The average of the child's rated home leadership behavior, the average rated leadership behavior of his frequent home companions, and the leadership behavior pattern observed in the nursery school were plotted graphically (see Figures 4a, 4b, 4c, and 4d). From each child's graph, the rank order in which he used the leadership methods at home and in the nursery school was determined. The rank order of use of the methods by the home companions was also determined. The Spearman Rank Correlation method was used to determine to what extent these three patterns were correlated.

A correlation coefficient of twice the standard error of the estimate was considered significant. The results of these correlations are summarized in Table XIII.

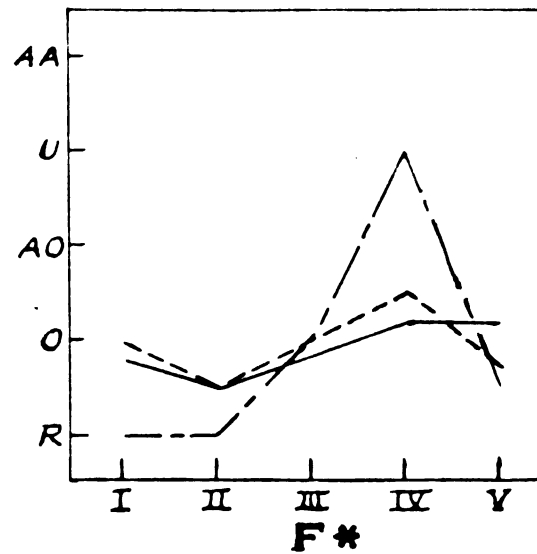
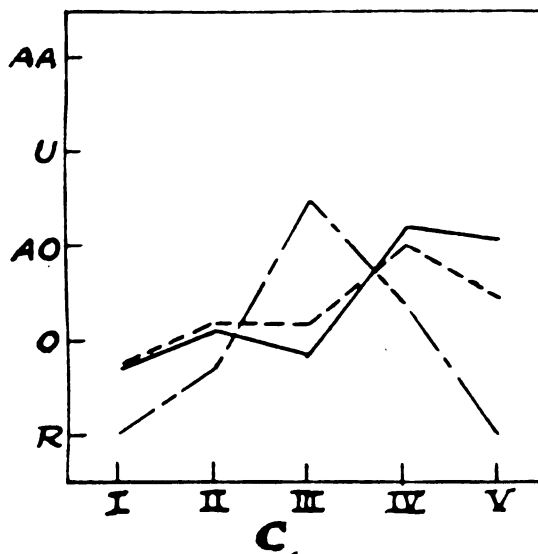
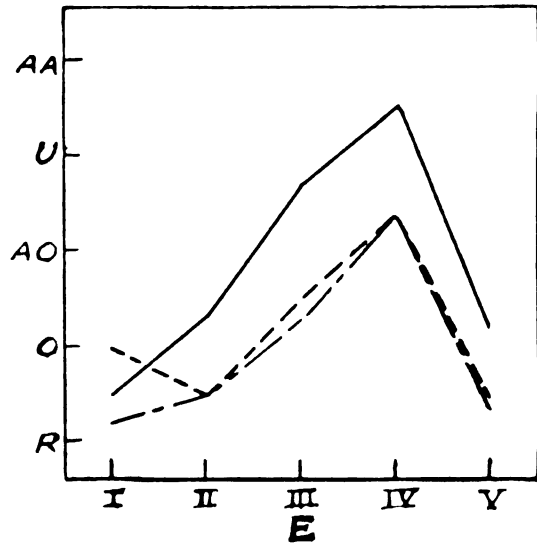
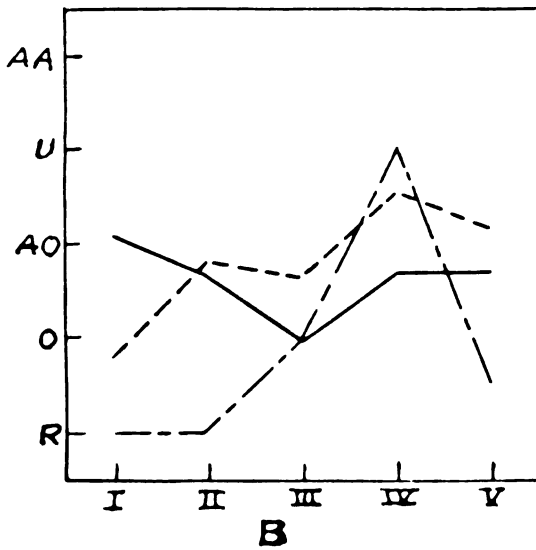
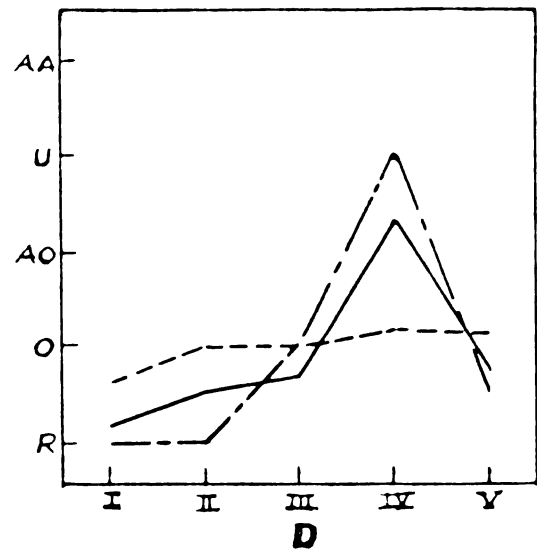
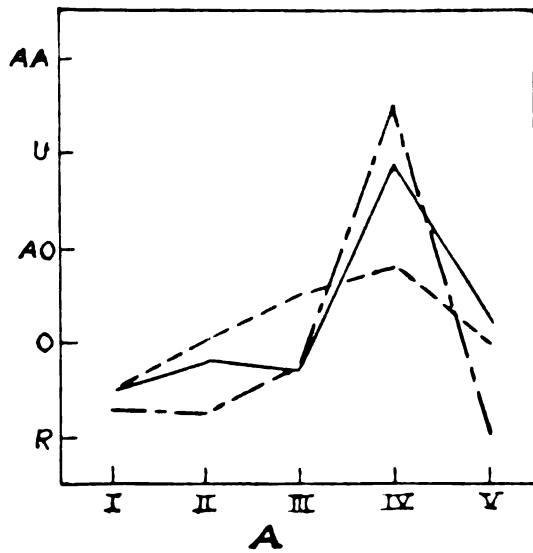


FIG. 4a-CHILD'S SCHOOL LEADERSHIP BEHAVIOR COMPARED TO HIS OWN & COMPANIONS LEADERSHIP BEHAVIOR IN HOME ENVIRONMENT.

KEY

- METHODS USED BY CHILD IN NURSERY SCHOOL.
- METHODS USED BY CHILD WITH 3 COMPANIONS (AVERAGE)
- - - - - METHODS USED BY CHILD'S 3 COMPANIONS (AVERAGE)

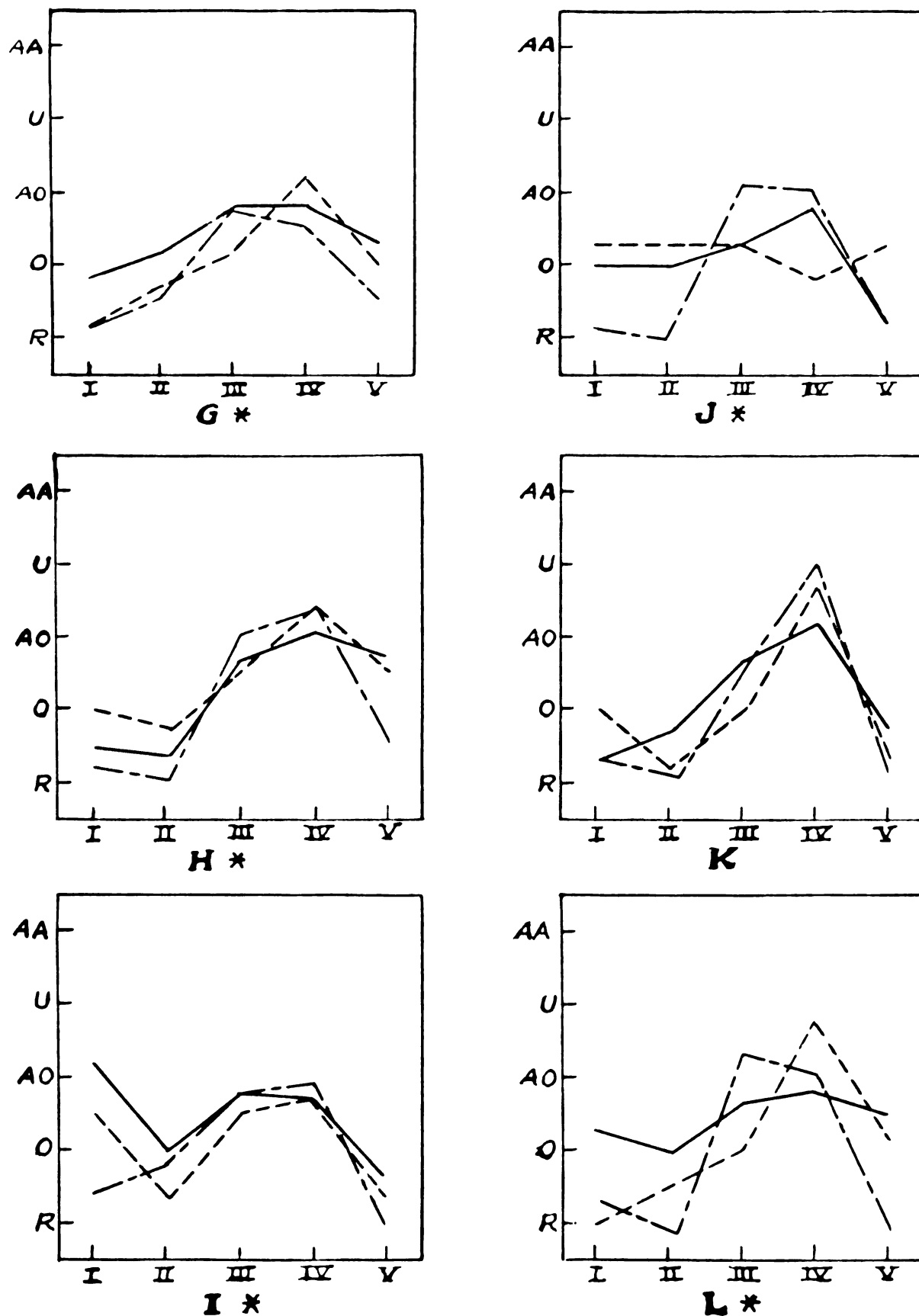


FIG. 4b-CHILD'S SCHOOL LEADERSHIP BEHAVIOR COMPARED TO HIS OWN & HIS COMPANIONS' LEADERSHIP BEHAVIOR IN HOME ENVIRONMENT. KEY

--- METHODS USED BY CHILD IN NURSERY SCHOOL.
 — METHODS USED BY CHILD WITH 3 COMPANIONS (AVERAGE)

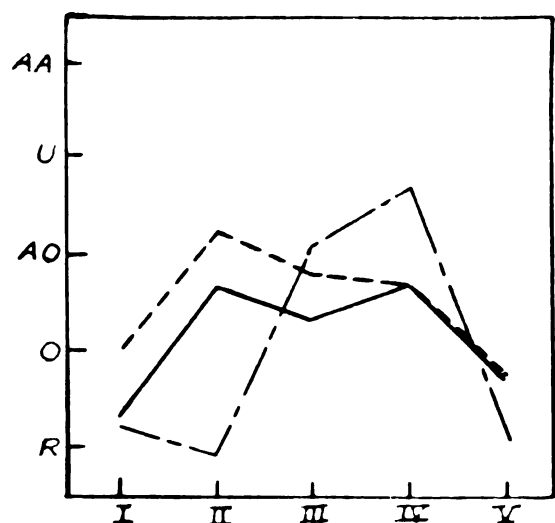
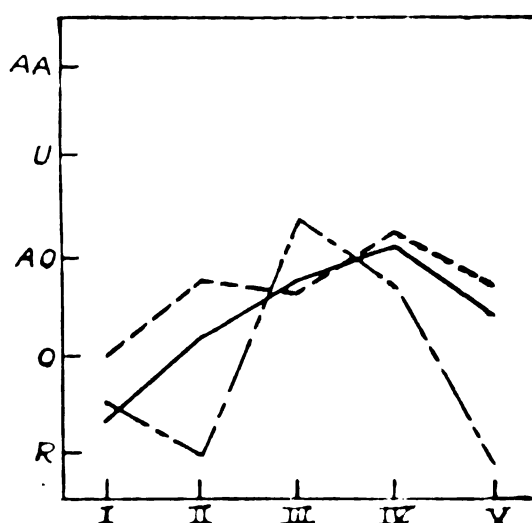
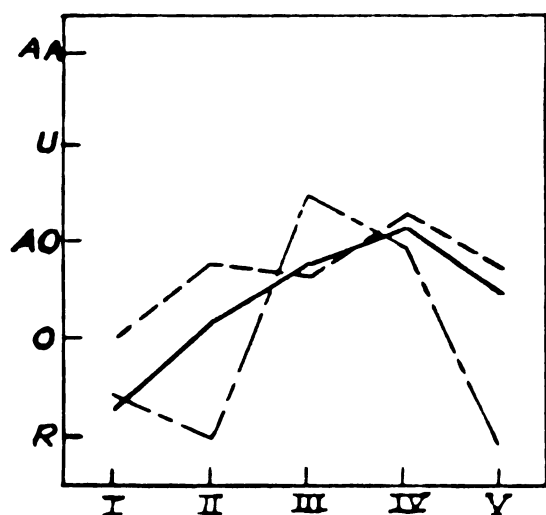
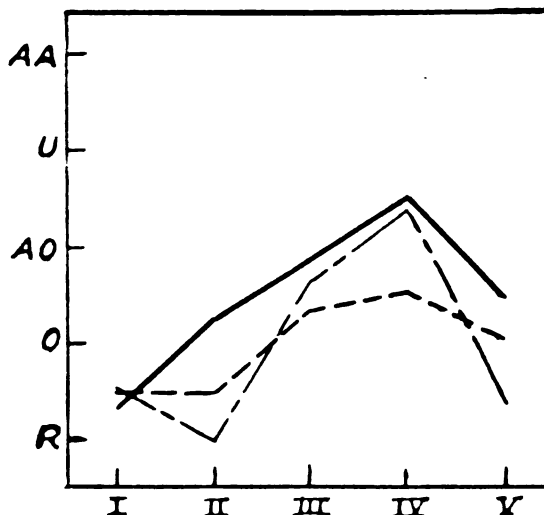
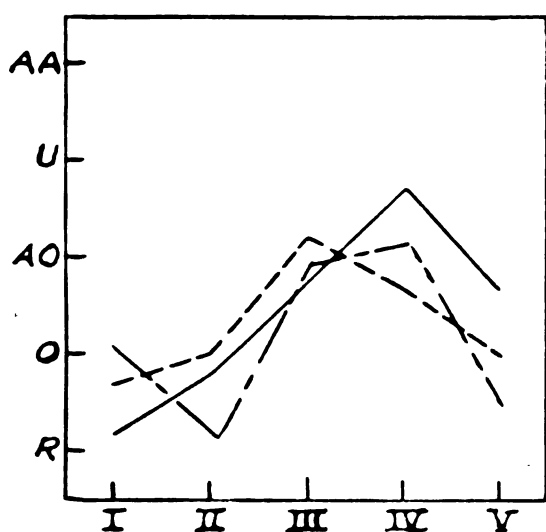
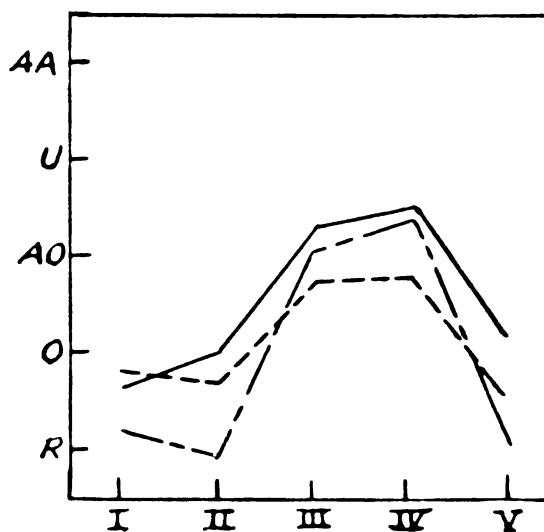
**M****P****N****Q****O*****R**

FIG. 4C- CHILD'S SCHOOL LEADERSHIP BEHAVIOR COMPARED TO HIS OWN & COMPANIONS' LEADERSHIP BEHAVIOR IN HOME ENVIRONMENT.

KEY

- METHODS USED BY CHILD IN NURSERY SCHOOL.
- METHODS USED BY CHILD WITH 3 COMPANIONS (AVERAGE)
- METHODS USED BY CHILD'S 3 COMPANIONS (AVERAGE)

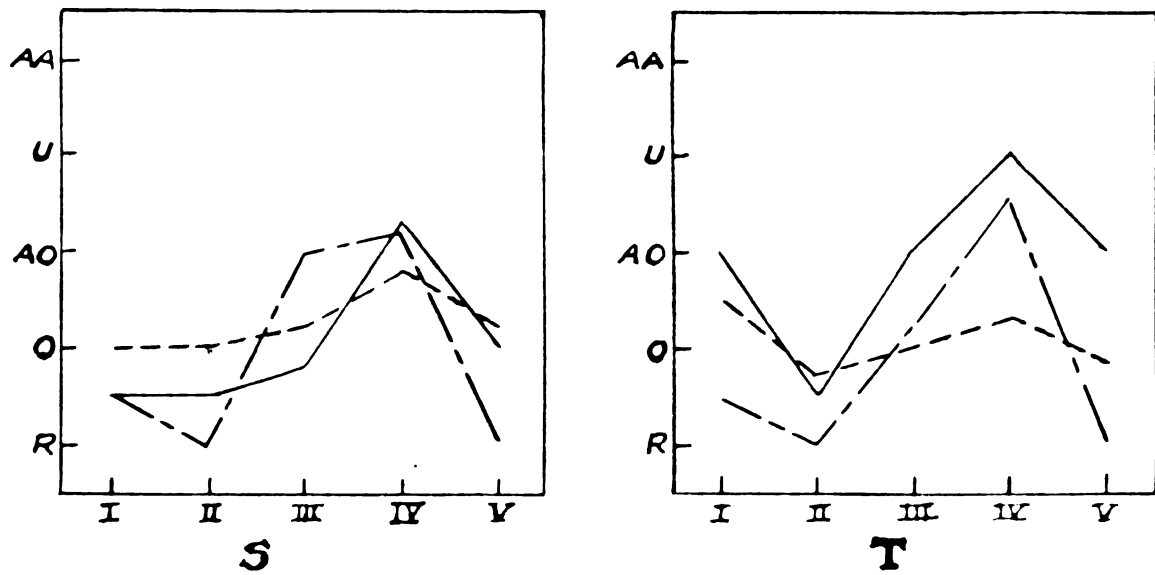


FIG. 4d- CHILD'S SCHOOL LEADERSHIP BEHAVIOR COMPARED TO HIS OWN & HIS COMPANION'S LEADERSHIP BEHAVIOR IN HOME ENVIRONMENT.

KEY

- METHODS USED BY CHILD IN NURSERY SCHOOL
- METHODS USED BY CHILD WITH 3 COMPANIONS(AVERAGE)
- METHODS USED BY CHILD'S 3 COMPANIONS(AVERAGE)

TABLE XIII

RANK ORDER CORRELATIONS ON INDIVIDUAL CHILDREN

Child	Correlation of Nursery School Behavior and			
	Own Home Behavior		Companions' Home Behavior	
	Significant	Not Significant	Significant	Not Significant
A		0.30	0.67	
B		0.50	0.70	
C		-0.12		-0.14
D	0.87		0.67	
E	1.00		0.70	
F*	0.85		0.82	
G*	0.87		0.80	
H*	0.97		0.97	
I*		0.42	0.70	
J*	0.65			-0.12
K	0.70		0.95	
L*	0.72			0.17
M*		0.11		-0.10
N		0.50		-0.20
O*	0.70			0.43
P		0.50		-0.20
Q	0.70		0.82	
R	0.70		0.90	
S	0.63		0.82	
T	0.90		0.70	
No. signif. correlated	13		13	

* Indicates boys.

For thirteen of the twenty subjects, ranking of leadership behavior as it was observed to occur in the nursery school was significantly correlated with the ranking of the child's leadership behavior in the home environment. That is, these thirteen subjects used the leadership techniques in the nursery school in approximately the same order in which they used them in play with frequent home companions. Child E's home and school behavior patterns showed perfect (+1.0) rank correlation with her home leadership behavior (see Figure 4a). She used Invitation-suggestion most frequently in both situations, Commands second, Verbal Force third, Bargaining-reasoning fourth, and Physical Force fifth.

In many cases, one and sometimes two leadership techniques were ranked as occurring to a different degree in the home environment. Bargaining-reasoning was in ten out of the thirteen cases given a higher ranking in the home environment; Physical Force was ranked lower in seven out of thirteen cases. This higher ranking of a technique recognized as desirable, and lower ranking of a less-desirable technique may be due to the "halo effect." The fact that Invitation-suggestion and Commands, which are somewhat more neutral in value, were more frequently

given the same ranking in school and at home, would seem to bear out this opinion.

For thirteen of the twenty subjects, the ranking of leadership behavior in the nursery school was significantly correlated with the ranking of the combined leadership behavior of the child's three frequent home companions. As in correlations of the child's own behavior, greatest agreement was found on Invitation-suggestion and Commands. The companions averaged sometimes less and sometimes greater use of Physical Force, Verbal Force, and Bargaining-reasoning than the nursery-school child.

The nursery-school behavior of ten of the subjects correlated significantly with both their own home-leadership behavior and that of frequent home companions. The nursery-school leadership behavior of four of the children did not correlate significantly with either their own home-leadership behavior or that of frequent home companions.

According to information gained through interviewing, those children whose behavior was not highly correlated with their own or with the leadership behavior of their home companions were children whose home companions were either older, more aggressive, or much younger than themselves. Children

B, C, and A played frequently with children older than themselves; companions of M*, O*, N, and P, although not older, were much more aggressive; L* and I* played most of the time with children considerably younger than themselves.

Use of leadership techniques by children who were rated as using a greater-than-average amount of these techniques in the home environment. From the graphs summarizing the home-ratings, the height of the rating of each behavior category for each child was measured, and the average for the twenty subjects determined. A comparison is shown in Table XIV of the average percent of nursery-school leadership contacts falling in each method-category for (1) those subjects who were rated as using a greater-than-average amount of the method in the home environment, and (2) those subjects who were rated as using less than an average amount of this method in the home environment.

With the exception of Physical Force, there seemed to be a tendency for children who were rated as using a greater-than-average amount of a leadership method in the home environment to average slightly higher use of that method in the nursery

TABLE XIV

CHILD'S OBSERVED LEADERSHIP BEHAVIOR IN THE
NURSERY SCHOOL AS COMPARED TO RATED
BEHAVIOR AT HOME: COMPARISON OF
INDIVIDUAL BEHAVIOR CATEGORIES

Methods of Leadership	Average Percent Use in Nursery School by Children Who at Home Used	
	More Than Avg. Amount	Less Than Avg. Amount
I. Physical Force	7.5	9.7
II. Verbal Force	2.7	1.2
III. Commands	32.4	32.0
IV. Invitation-suggestion	52.2	48.3
V. Bargaining-reasoning	5.3	3.4

school. No explanation was found for the reversal of the trend in the case of Physical Force:

Use of leadership techniques by children whose home companions were rated as using a greater-than-average amount of these techniques. A comparison is shown in Table XV of the average percent of nursery-school leadership contacts falling in each method-category for (1) those subjects whose home companions were rated as using a greater-than-average amount of the method, and (2) those subjects whose home companions were

TABLE XV

CHILD'S OBSERVED LEADERSHIP BEHAVIOR IN THE
NURSERY SCHOOL AS COMPARED TO RATED
BEHAVIOR OF HOME COMPANIONS

Methods of Leadership	Average Percent Use in Nursery School by Children Whose Home Companions Used	
	More Than Avg. Amount	Less Than Avg. Amount
I. Physical Force	8.3	7.7
II. Verbal Force	4.8	4.5
III. Commands	39.0	33.8
IV. Invitation-suggestion	46.3	49.7
V. Bargaining-reasoning	4.4	3.8

rated as using less than an average amount of the method.

The average use of a method by home companions was determined in the same way as for the child's home behavior.

With the exception of Invitation-suggestion, children whose frequent home companions used a greater-than-average amount of a leadership method were found on the average to use a slightly greater amount of this method in the nursery-school environment than did children whose home companions used the method less frequently.

The findings in this and the preceding section bear out to some extent the contention of Chave⁷⁵ and J. E. Anderson⁷⁶ that children learn different social techniques through play experiences, by experimentation with the technique, and through observation of the social techniques used by companions. However, the measure of home behavior was relatively crude and the differences in percentages so small that they might easily be due to chance factors or mechanical errors.

Influence of age of home companions upon leadership methods used by child in nursery school. An examination of the home interviews revealed that children B, C, D, and F* played much of the time with children a year or more older than themselves. Children E, I*, K, L*, R, and T played primarily with children a year or more younger than themselves. In Table XVI is shown the computed average use of the different leadership techniques in the nursery school by these two groups of children.

⁷⁵ Chave, op. cit.

⁷⁶ J. E. Anderson, op. cit.

TABLE XVI

AGE OF HOME COMPANIONS AND LEADERSHIP METHODS
USED IN NURSERY SCHOOL

Methods of Leadership	Average Percent Distribution of Methods in Nursery School for Children Whose Home Companions Were	
	Older Than Selves	Younger Than Selves
I. Physical Force	4.5	7.8
II. Verbal Force	4.8	5.1
III. Commands	30.8	35.1
IV. Invitation-suggestion	53.2	47.7
V. Bargaining-reasoning	7.3	2.7

Those subjects who played with older children in the home environment tended to use more Bargaining-reasoning, more Invitation-suggestion, and less Commands, Verbal Force, and Physical Force in the nursery-school situation than did children who played principally with younger companions at home. It might be theorized that children tend to use less-diplomatic methods with younger children, and that if a child plays primarily with younger children much of the time, this pattern becomes habituated and carries over to other situations. Children associating with older children, perhaps because they are at

a disadvantage in physical size and in prestige, develop diplomatic methods out of necessity (and perhaps partly from the example set by the older child), carrying these techniques over to other situations.

Influence of sex of home companions on leadership methods used by child in nursery school. An attempt was made to analyze the possible influence of the sex of home companions upon the child's leadership behavior (see Table XVII).

Two out of the three frequent companions of children M*, G*, H*, J*, K, R, T, and A were boys. These children on the average used less Physical Force, less Verbal Force, less Commands, and more Invitation-suggestion and Bargaining-reasoning in the nursery school. Conversely, children L*, O*, I*, N, P, Q, S, D, B, E, and C, who played more frequently with girls, used more of the nondiplomatic methods.

This same relationship held true when considering the boys separately. However, the relationship was different when considering girls separately. Girls who played most frequently with boys in the home environment used more Physical Force, more Invitation-suggestion, but less of the other techniques than girls playing with same sex companions.

TABLE XVII
SEX OF HOME COMPANIONS AND LEADERSHIP METHODS
USED IN NURSERY SCHOOL

Methods of Leadership	Average Percent Used by					
	Children Whose Home Companions Were		Boys Whose Home Companions Were		Girls Whose Home Companions Were	
	Boys	Girls	Boys	Girls	Boys	Girls
I. Physical Force	8.0	6.3	9.7	7.3	5.7	6.8
II. Verbal Force	3.0	4.2	3.0	5.5	3.6	3.6
III. Commands	34.2	38.5	48.1	35.2	40.2	31.1
IV. Invitation- suggestion	48.7	46.7	42.1	47.0	45.9	52.7
V. Bargaining- reasoning	5.0	4.7	6.8	5.2	4.3	3.8

Part IV. Teacher's Ratings of Child's
Nursery-school Behavior

Degree of correlation as determined by Spearman Rank

Correlation method. The two teachers for each nursery school were asked to rate each child in their group on the extent to

which they thought that child used each of the five leadership categories. These ratings, originally intended as an external criterion of the validity of the observation findings, showed so little correlation with them as determined by the Spearman Rank Correlation method that they did not serve this purpose. The teachers agreed significantly with one another more frequently than they agreed with the nursery-school observation results. In twelve out of the twenty cases, the teacher-rankings were significantly correlated with one another; in only five cases did the average teacher-rankings correlate significantly with nursery-school observation results.

Rankings of individual behavior categories. In Figure 5 the teachers' rankings of children on the individual behavior items are summarized. The children are distributed among the five rankings of behavior according to the frequency with which this behavior was observed to occur in the nursery school. Children listed in Column 1 for any leadership method were found to use that method most frequently; those listed in Column 2 used that method second most frequently, etc. The arrows indicate the placement of the child according to the averaged rankings of the two nursery-school teachers.

FIGURE 5

RANKINGS OF CHILDREN FROM NURSERY-SCHOOL OBSERVATIONS, AS COMPARED
TO RANKINGS BY THEIR TEACHERS*

Physical Force						Verbal Force					Commands					Invitation-suggestion					Bargaining-reasoning				
1	2	3	4	5		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
<—A	<—B	C	<—D	E		<—A	<—B	C	D		A→	B→	C→	D→		A→	B→	C→	D→		<—B	<—C			
<—G	F	<—H	I	J		<—G	F	H	I	J	F→	G→	H→	I→		F→	G→	H→	I→		<—F	<—G	E		
<—K	L					<—K	L				I→	J→	K→	L→		I→	J→	K→	L→		<—J	<—K			
<—M	N	<—O	P	Q	R	<—M	N	<—O	P	Q	K	L	M	N		K→	L→	M→	N→		<—M	<—N	O	P	
<—S	T					<—S	T				L	M	N	O		M	N	O	P		<—O	<—P	Q	R	
											N	O	P	Q	R	O	P	Q	R	S		<—Q	<—R	S	T→

*Each child is placed according to rankings based on nursery-school observations. Children listed in Column 1 used that method more frequently than any other; children listed in Column 2 used that method second most frequently, etc. The arrows indicate placement of the child according to the averaged rankings of the two nursery-school teachers.

The greatest disagreement was on Behavior Item V, Bargaining-reasoning. As the arrows indicate, the teachers rated all but three subjects as using this behavior to a greater degree than it was found to be used in the nursery school. For several children this exaggeration was quite extreme. Eight of the twenty children were listed as using this method more frequently than any other type. It is interesting to note that the children rated highest on this item are ones whose general behavior could be classed as reasonable or agreeable, and those rated lowest were children whose behavior was less agreeable and less in harmony with the rest of the group. This might indicate that the teachers were rating some such quality as reasonableness rather than the child's use of Bargaining-reasoning as a leadership method.

The rankings of Verbal Force and Physical Force (Figure 5) were very similar, the teachers evidently considering these two methods to go pretty well hand in hand. The children who were ranked low in Bargaining-reasoning were ranked very high on these behavior items. While their rankings on the basis of nursery-school observations were higher than the majority of the children, the teachers' ratings exaggerated this fact.

Commands were the first or second most frequently occurring behavior item observed for all subjects; but the teachers tended to minimize the occurrence of this method, ranking it third for most of the children.

The Invitation-suggestion category (Figure 5) was recognized by the teachers as being the first or second most frequently occurring leadership behavior for most of the children. Teacher- and observer-rankings agreed most closely on this category.

In conclusion, this study would seem to indicate that, assuming the behavior sampled in the nursery school was fairly representative, the behavior-ratings asked of the teachers were so specific that the teachers were not sufficiently acquainted with each child to rate him. Lacking specific knowledge, they fell back on general impressions as the agreeableness or reasonableness of the child's personality. The teachers tended to exaggerate the behavior recognized as more desirable and the behavior thought to be less desirable. The two categories, Commands and Invitation-suggestion, which were seen as being somewhat more neutral in value, were rated the most accurately.

If teachers' ratings are to be used as a measure of the methods of leadership individual children use, it would seem desirable to have them observe the children for these methods before making their ratings.

CHAPTER V

SUMMARY AND CONCLUSIONS

Objectives

The objectives of this study were threefold, to determine: first, what methods preschool-age children use in attempting to lead one another; second, to what extent the use of these methods is determined by their success; and third, if the methods the child used were in any way related to the methods the child and his frequent companions used in the home environment.

Leadership was defined in this study as any means, verbal or nonverbal, by which a child consciously attempted to direct the behavior and thinking of other children. Operating under the premise that all children act as leaders in some situations and with some children, no attempt was made to measure the extent of leadership or to indicate which children were outstanding in this respect.

The principal problems under consideration at the beginning of the study were: (1) the compiling of a list of leadership techniques used by preschool children and the grouping of these

techniques into a few broad categories to facilitate recording and simplify comparisons, (2) the development of a system for observing and recording leadership attempts made by the children in the nursery school, and (3) the development of some means of ascertaining the leadership techniques used by the child and his frequent companions in the home situation.

Methods

From an extensive list of leadership techniques gathered through reading previous related studies and through actual observations in the nursery school, five classifications of leadership behavior were adopted.

1. Physical force to enforce demands. This included such methods as pushing, pulling, hitting, and grabbing.
2. Verbal force, threatening to use physical force or inflict some other punishment if child does not comply with wishes.
3. Commanding or directing a child to do something or refrain from doing something.
4. Invitations, suggestions, or requests to initiate joint activity.
5. Bargaining or reasoning with another child to gain one's ends.

Observations were made of the extent to which these leadership methods were used by twenty nursery-school children in two nursery schools. The children ranged in age from three years, nine months, to five years at the midpoint of the time observations were made. During the indoor free-play period, the observer surveyed the entire group present, or concentrated on subgroups, recording leadership contacts as they occurred. The child initiating the contact, the child contacted, the method of contact, and the response were recorded in code. A brief description of the situation was written whenever possible. A maximum of eight leadership contacts was recorded for any one child during an observation period, and a total minimum of fifty contacts was recorded per child.

From these data it was possible to compute each child's "leadership pattern," the percent of each child's leadership contacts which fell into each of the five categories, and the percent to which each leadership category was successful. Data for individuals were averaged together to yield information on the two nursery-school groups and on all twenty subjects combined.

An attempt was made to establish the validity of the data by correlating observation results with ratings of the

nursery-school teachers. The teachers were asked to rate the children on the degree to which they used each of the five leadership categories. The teachers' ratings were not significantly correlated with the nursery-school results in enough cases to establish validity.

A five-point rating scale was developed to obtain an estimate of the frequency with which the child and his three frequent home companions used the five leadership methods. Ratings were obtained through interviewing--from the child's parent and a parent of each of his companions. The leadership patterns resulting from averaging these results were compared by Spearman's Rank Correlation method to the leadership pattern of each child observed in the nursery school.

The average rating of all subjects and of all home companions on each of the five leadership categories was determined. The use of leadership methods in the nursery school by children who were rated as using greater-than-average amounts of these methods in the home environment was compared to use of the same methods by children who were rated as using less than an average amount of that method in the home environment. Similarly, the percent to which children, whose companions used

greater-than-average amounts of any method, used that method in the nursery school was determined.

Findings

Frequency of use of different leadership methods. Invitation-suggestion was the category including the highest percentage of leadership methods. Almost one-half of all leadership methods were classified in this category. Better than one-third of all contacts were in the form of Commands. Physical Force ranked third in frequency; Bargaining-reasoning and Verbal Force were a close fourth and fifth.

Invitation-suggestion and Commands were primary leadership methods. Physical Force, Verbal Force, and Bargaining-reasoning tended to be used when these primary methods failed.

Invitation-suggestion and Bargaining-reasoning were of a more diplomatic nature, indicating greater consideration for the other child. The percentage of leadership contacts of individual children which fell in these categories was found to range from about 30 to 75 percent. The average percent of use of these methods was 53.0 percent--slightly more than the percent for

Physical Force, Verbal Force, and Commands, the less diplomatic methods.

Girls were somewhat more diplomatic than boys. Boys used higher percentages of Physical Force and Commands. Boys were more diplomatic toward boys; girls, toward other girls. More Physical Force was directed toward girls, and more Verbal Force, toward boys by both boys and girls.

Children who directed a high percentage of their leadership toward a single child tended to use slightly more Physical Force, Verbal Force, and Commands.

Frequency of use of methods related to success. For all twenty subjects, Invitation-suggestion was the most successful method-category, followed by Bargaining-reasoning, Commands, Verbal Force, and Physical Force.

The frequency of use of a method did not correspond too closely to its success. Invitation-suggestion, the most successful method, was also the one most frequently used. Bargaining-reasoning, which ranked second in success, was used only fourth most frequently. Physical Force, least successful of all methods, was ranked third in frequency. Commands ranked third in success, was used second most frequently.

Over-all success of individual children. The boys and girls differed somewhat in the percent of success with which they used the various methods. Boys were more successful in their use of Physical Force, the girls were considerably more successful in the use of Bargaining-reasoning.

The average over-all success for all subjects was 62.7 percent, the range being from 37.9 to 82.1 percent. The most successful children were not necessarily those who used diplomatic techniques to the greatest extent.

Boys were more receptive to leadership approaches regardless of the methods used. Physical Force, Verbal Force, and Bargaining-reasoning met with considerably higher success when directed toward the boys. Girls were generally more successful in attempts to lead other girls; and boys, in leading other boys.

Comparison of home and school leadership patterns. There was some evidence to substantiate the theory that the child's leadership behavior was influenced by his relationship with frequent companions in the home environment.

The nursery-school leadership behavior of thirteen subjects correlated significantly with their own home behavior, as

determined by the Spearman Rank Correlation method. The nursery-school leadership behavior of thirteen of the subjects was correlated significantly with the behavior of their frequent home companions. The nursery-school leadership behavior of ten of the subjects correlated significantly with both their own home leadership behavior and that of frequent home companions. Four of the children showed no correlation with either their own or their companions' home behavior.

Children who were rated as using a greater-than-average amount of a leadership method in the home environment averaged slightly higher use of that method in the nursery school than did children who used the method less frequently in the home environment. Children whose frequent home companions were rated as using a greater-than-average amount of a leadership method in the home environment used a slightly greater amount of that method in the nursery school than subjects whose home companions used less of the method.

Children who played primarily with older children in the home environment on the average used more **Bargaining-reasoning**, more **Invitation-suggestion**, and less **Physical Force**, less **Verbal Force**, and fewer **Commands** than children who played

primarily with younger children at home. Children who played most of the time with boys at home used less Physical Force, Verbal Force, and Commands in the nursery school than children who played much of the time with girls.

Teachers' ratings of leadership techniques. Teachers seemed unable to rate accurately the extent of use of the different leadership techniques without directed observation. Lacking knowledge of each child's specific use of leadership methods, their ratings reflected the reasonableness or agreeableness of the child as a group member, rather than the extent of use of the various methods. Parents' ratings corresponded more closely to the general pattern found in the nursery school.

APPENDIX

HOME QUESTIONNAIRE

Child's name _____ Date _____
 Rated by _____

Companion No.	Age	Sex	Relation (if any)	Time played with per week (hours)
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____

Method	Rarely if ever	Occa- sion- ally	As often as not	Usu- ally	Al- most al- ways	Re- sponse
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Indicate the frequency with which the child uses the following methods to get the playmate to do as he wishes.

1. Physical force (pushing, pulling, hitting, etc.)	_____	_____	_____	_____	_____	_____
2. Verbal force (threats, threatening commands)	_____	_____	_____	_____	_____	_____
3. Commands to do something or refrain from doing something (not threats)	_____	_____	_____	_____	_____	_____
4. Invitation, sug- gestion, and request	_____	_____	_____	_____	_____	_____
5. Bargains or rea- sons, explains the why of his suggestion or request	_____	_____	_____	_____	_____	_____

Indicate the frequency with which the companions use the following methods to get child to do as they wish.

1. Physical force	_____	_____	_____	_____	_____	_____
2. Verbal force	_____	_____	_____	_____	_____	_____
3. Commands	_____	_____	_____	_____	_____	_____
4. Invitation, sug- gestion and request	_____	_____	_____	_____	_____	_____
5. Bargaining or reasoning	_____	_____	_____	_____	_____	_____

TEACHER RATING SCALE

Name of child _____

Date _____ Rater _____

Indicate by placing a check in the appropriate column, the frequency with which this child uses the leadership techniques listed. This should be a general rating of the child, rating him in his relationships with all or most of the children in the group rather than with any specific child.

Method	Rarely if ever	Occa- sion- ally	As often as not	Usu- ally	Al- most al- ways
1. Physical force (pushing, pulling, hit- ting, etc.).	_____	_____	_____	_____	_____
2. Verbal force (threats, or threatening commands).	_____	_____	_____	_____	_____
3. Commands to do something or refrain from doing something (not threatening).	_____	_____	_____	_____	_____
4. Invites other child to join activity, makes suggestion for play ac- tivity, or requests something of other child.	_____	_____	_____	_____	_____
5. Bargains or rea- sons. Expresses will- ingness to meet child halfway or compro- mise. Explains the "why" of suggestion or request.	_____	_____	_____	_____	_____

OBSERVATION SHEET

Date _____ School _____

Child initiating contact	Child contacted	Mode of contact	Response	Additional notes
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