# THE RESPONSES OF SIXTEEN NURSERY SCHOOL CHILDREN TO STANDARDS SET BY ADULTS IN THE NAP ROOM

by

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# THE RESPONSES OF SIXTEEN NURSERY SCHOOL CHILDREN TO STANDARDS SET BY ADULTS IN THE NAP ROOM

## CHAPTER I

## STATEMENT OF PROBLEM

In the process of growing up and exploring his enviornment and the other individuals in it, the child frequently meets the concepts of goodness and badness. He soon learns that there are things he should do and should not do. He learns that when he oversteps the limits imposed upon him by adults, he is considered naughty, and when he stays within the limits as he is expected to do, he is good. To a child, such rules and limits are real things. They are absolutes, not just relative to a particular situation. To break a rule is to break an actual thing, and can cause a child much anxiety. But as long as he confines his activities to what he is supposed to do, he is sacrificing his identity and feeling of selfness, his awareness of himself as a person of worth. When guidance and control come only from without, the child remains ignorant of what he is able to do, how much he is able to control himself, plan his own actions and make his own decisions.

In order to develop ego strength, which includes a realistic acceptance of and confidence in himself, and a

realistic conscience, the child needs to be able to test the limitations of his environment. By asserting himself against these limits, he can gain strength. Some of the limits are in the world of matter. The child is too young, too small, too weak, or perhaps too big to do things he would like to do. Some of the limits are met in his relationships with other people who may deny him things or compete with him.

In the beginning, the child regarded adults as all-powerful and of unquestionable wisdom. They have decreed and he was expected to obey. It is important to the child's development that he be able to defy these omnipotent people with safety and thus discover sources of strength within himself. Even if his attempt at defiance is over-ruled, the learning may still be good if the limits are maintained in a non-threatening way. The child learns that he can defy or assert himself as a separate person, be limited, and suffer no harm. He may learn that he is safe because he will not be allowed to be bad and do things which terrify him since in doing them he may alienate himself from adults and his source of safety.

In the modern family especially, the child is faced with this problem of testing out the adults by himself, because many times he has no brothers or sisters with whom to band against the adults. This means that in order to

assert himself, he must have the strength to do it alone. Since asserting oneself alone demands more of the individual child than allying oneself with a group in assertion, it is possible that some individuals suffer in their ego development because they do not have the requisite courage. One of the great advantages a nursery school or some other such group situation offers a child is the opportunity to identify himself with others of his own age and skill. In group membership, he may gain new support against the adults in his environment, of whom he is a little afraid because of his helplessness. He may be able to try out many things he would not be able to do alone. The problem of working out what he wants to do, what he thinks he ought to do, and what he feels is wise to do can take on a new perspective in the group situation.

Many interesting factors are involved in the testing of adult limits, standards, and goals in a group situation. It is impossible to investigate them all in a short study, but certain questions may be answered in part. Not all children may respond similarly to group membership, or find in it the same strength. Some children may lead a great deal in trying out limits, and follow little, while other children may follow a great deal and seldom lead. There is also the possibility that the activity may vary

in amount rather than kind. The size of the group may have an effect on the activity of the group and of individual children. The characteristic of "groupness" may have more influence than size. Leading and following behavior may be affected differently by the group. The behavior of the children in nursery school can be related to their home environment, and the parents' feelings about and concepts of discipline.

The trends shown by a study of the way children test adult limits in a group situation will need to be considered in the cases of particular individuals. Generalizations about groups have their greatest value when applied to the individual child. Each child will show some variation from the group in his behavior and the factors influencing it. Two behavior patterns, superficially similar, can arise from entirely different backgrounds, and two similar backgrounds may result in entirely different behavior.

The general problems to be considered in this study are the amount of "testing out" behavior of children in a group situation where conditions are set by adults, and the influence of certain factors in the home on their behavior in nursery school. The situation selected for study is the rest period when the children attending nursery school are required to rest on cots for a certain

length of time before having lunch. This situation meets the requirements of a group situation in which all the children participate and certain standards for behavior are set by the adults as remaining on the cot, being quiet, and thus there is opportunity for the child to assert himself or "test out" his strength by leading or following other children in opposing the adults. The scope and methods of the study will be limited, but perhaps a part of the way in which children meet the tasks of developing a mature conscience and ego strength may be clarified.

# CHAPTER II

## REVIEW OF LITERATURE

During the first four or five years of the child's life, he becomes increasingly aware of the fact that he is a human being with a mind and will of his own. Erikson (6, p.199) describes this period as the time of the child's growing sense of autonomy, the sense that he is an independent human being and yet one who is able to use the help and guidance of others in important matters. Self-control without loss of self-esteem, the favorable outcome of this stage, is apparent in what can be called a mature adult conscience. The unfavorable outcome is doubt and shame.

This period, as Erikson suggests, is an important step in the eventual development of ego strength, defined by Symonds (19, pp.1-3) as the "efficiency of the ego in regulating impulses and mastering the environment," or "the capacity for sustaining emotional equilibrium while waiting for later gratification." Criteria for ego strength listed by Symonds include the capacity to react successfully to environmental stress, degree of rigidity as contrasted with the plasticity and elasticity of the personality, ability to live by planned resolutions and compacts with the self, degree of genuine self-regard,

capacity for effective repression, and a working relationship between demands of inner drives, outer demands, and superego requirements. This last criteria is again a characteristic of the mature conscience in which, as Symonds suggests, conflict is minimized and the individual is able to work out effective compromises between the various demands.

Fromm (8, p.233) defines conscience as "the voice which calls (man) back to himself. It permits him to know what he ought to do in order to become himself, it helps him to remain aware of the aims of his life and of the norms necessary for the attainment of these aims." According to Isaacs (9, p.79), a child's behavior in the earlier years is determined simply by personal fears and affections, not by moral ideas, since his mind is not yet able to grasp abstract notions of good and evil. What is "naughty" means for the little child simply and literally "what makes grown-ups angry." This type of conscience is described by Fromm (8, pp.143,167) as an authoritarian conscience, the voice of an internalized authority which, in the first stage of the evolution of conscience gives commands that are followed later on not because of submission to the authority but because of one's responsibility to oneself. Fromm (7, pp.517-518) states that this further development involves the

acquisition of "the kind of character which makes (individuals) want to act in the way they have to act as members of the society or of a special class within it. Outer force is to be replaced by inner compulsion, and by the particular kind of human energy which is channeled into character traits."

Isaacs (11, p.270) describes the mature conscience as the conscious representative of the far deeper, more primitive and earlier form in the unconscious levels of the mind. According to Ross and Johnson (17, p.7), the child learns gradually to take the standards and wishes of the parents into himself, so that even when the parents are not in his presence the child desists from doing things he knows would not meet with their approval. Isaacs (11, p.270) suggests that it is as if the child, at a very early stage of development, actually took the parents themselves into his mind. A part of himself begins to act towards his person as a whole. It becomes the parents-in-him, and in his fantasies is indeed the parents in him.

For a child to develop the sense of self-reliance and adequacy that Erikson (6, p.199) calls autonomy, it is necessary that he experience over and over again that he is a person who is permitted to make choices. At the same time he must learn some of the boundaries of

self-determination. His experience is too small to enable him to know what he can do and cannot do with respect to the physical environment, and it will take him years to discover the boundaries that mark off what is approved, what is tolerated, and what is forbidden by his elders whom he finds so hard to understand. Isaacs (11, p.257) adds that open expression of defiance towards an adult represents a definite advance in the child at this stage. "It hints at greater confidence in facing the world, and must in part be an expression of dawning self-awareness," since the child is able to make the choice to assert himself against the adult authority.

Various mechanisms are cited which make the child wish to learn what is expected of him and how to behave properly according to adult standards. One mechanism is discipline, defined by DuBois (5, p.355) as "the educational process by which parents lead the child to independent self-discipline and the inner security of the wholesome, well-integrated personality that is characteristic of the emotionally mature adult." This educational process involves learning to handle hostility and violence, sexual impulses and adaptation to innumerable demands and restraints. Saul (18, p.135) reminds us that almost from birth the child is subject to deliberate

training by the parents through rewards and punishments. "During the period of the developing sense of autonomy, (Erikson, 6, p.200) the matter of mutual regulation between parent and child faces its severest test. Firmness is necessary, for the child must be protected against the potential anarchy of his as yet untrained sense of discrimination. Yet the adult must back him up in his wish to 'stand on his own feet,' lest he be overcome by shame that he has exposed himself foolishly and by doubt in his self-worth."

Isaacs (10, p.212) suggests the testing of limits during this period as being motivated by a need for reassurance: "Certain children will seek actively to provoke resistance and denial or punishment from their parents by open and persistent defiance. When an expression of disapproval has been won, such children seem to feel for a time more secure, since they have once again proved that real parents do not necessarily destroy when they are angry."

A second mechanism proposed by Saul (18, p.111) is that of identification. The child is small and physically looks up to those who train him. He forms his standards and conscience in part by example, through modeling himself on the adults who are responsible for him and with whom he has a close relationship. Saul (18, p.134)

states: "Little and weak, the child is possessed of a vigorous biologic drive to grow up, reflected in its mind as a persuasive desire to be big and strong like those who tend it. The great prestige of being 'grown up' becomes attached to the innate drive to grow up, and out of desire for prestige and esteem the child yearns to be like the parent."

A third mechanism is that of the need for love and approval. Fromm (8, p.11) emphasizes the fear of disapproval and the need for approval as seeming to be "the most powerful and almost exclusive motivation for ethical judgment," preventing the child and later the adult from asking critically whether "good" in a judgment means good for him or for the authority. Ross and Johnson (17, p.7) stress the child's attempts to please his parents, to be good in order to be loved. For the helpless child, love is the assurance of security. The child learns to do what is expected of him through these basic biologic cravings for love and also out of love for those who love him. Anxiety enters in here, also, for not to please the adult can mean to the child the possible loss of the parent's love and care.

Erikson (6, p.200) mentions shame and doubt as emotions that many primitive peoples and some of the less

sophisticated individuals in our own society use in training children. He states: "Shaming exploits the child's sense of being small. Used to excess, it misses its objective and may result in open shamelessness, or in the child's secret determination to do as he pleases when not observed." Fromm (7, p.519) observes that there is nothing more effective in breaking any person than to give him the conviction of wickedness. "The more guilty one feels, the more easily one submits because the authority has proven its own power by its rights to accuse. What appears as a feeling of guilt, then, is actually the fear of displeasing those of whom one is afraid." "The genuine moral problem, that of realizing one's potentialities, is lost from sight."

Isaacs (11, pp.270, 371), however, regards the feeling of guilt as being inherent in the fundamental interactions between human mental structure and inevitable early experience. While the environment can exaggerate the sense of guilt and milder methods of teaching and help minimize it, she feels that this sense of guilt develops spontaneously in the child's mind, whatever the precise nature of his educational experiences. She describes the feeling of guilt as: "The dread of (the) part of oneself that is the parents, that (in fantasy)

judges and condemns and reproaches and punishes; and in punishment does to oneself all that one wanted to do to others. A great part of the feeling of guilt is thus unconscious, inaccessible to one's ordinary self-awareness. Erikson (6, p.200) states that in order that such feelings of shame, doubt, and guilt should not win out, the child must have a good balance between experience in which he has the joy of independent action and experience that teaches him the necessary limits of freedom.

Studies of the "testing out" of adults done by children in a group, a testing of their strength to be independent against the adult's limits, are comparatively few in number. Outstanding is a study conducted by Susan Isaacs in a London nursery school over a period of several years. During the course of the study voluminous notes were taken on many areas in the behavior and development of young children, one area of which was group hostility. The material obtained in this study was especially informative because Isaacs was able to relate the observations made to background material on the children, in this way discovering the significance of the data on group trends to each particular child.

Isaacs describes the child's entrance into nursery school as being divided into two phases (10, p.198). In

the first phase the child tends to consider all other children as threats, as rivals and enemies. He may project all his hostility onto them, and remain on the defensive, needing the reassuring support of an adult. The second phase is described as "an active testing of one's and other people's behavior, in order to see what does happen as a result of real participation." The agressive contacts the child experiences with other children during this time help convince him that others are not wholly hostile, and enable him to experience the active pleasure and real support of playing with them.

Isaacs (11, pp.248-253) defines "group" in the sense of two or more children welded together by a common purpose or a common feeling. It has no permanence or organization at the early preschool level. One of the emotions first binding children together into a group is that of hostility towards an outsider. Children will express hostility more frequently in a group than individually because of the additional strength found in group membership. Isaacs observes: "All children (of, say, four years or more) will go further in open expressions of hostility when 'egged on' by the words or even the mere presence of their fellows. And there are many children who would never dare to express open hostility to an older or bigger child or to an adult, save when other

children are about and perhaps joining in."

When two children are joined in this common emotion against a third, a sense of togetherness develops, "We are together against him, the outsider." In fact, whenever two or more children draw together in feeling or aim sufficiently to create a group, they tend in their very drawing together to find an enemy to the group, this hostility seeming to be an essential condition of any warmth of togetherness within the group. In this way, group hostility is bound up with the first dawnings of group togetherness, the group eventually gaining some ascendency over its individual members, assuming an organization, and winning a measure of permanence.

Once a child has overcome his first dread of other children as rivals (11, pp.257-261) and discovered the delights of togetherness with them, he finds that they can feel and act with him against the grown-ups, too, no less than against other rival groups of children. He gains support against the adults in his environment who are overwhelming not only because they may be angry and punishing, but also by virtue of their good qualities and the child's complete dependence on them.

Open shows of hostility to the adults, whether serious or playful, are indications of an adjustment that is going on in the deeper levels of the child's

mind, and that reveals itself also in many other and more commonly approved ways. Isaacs feels that every healthily-developing child goes through a phase of defiant self-assertion against the world in general and his parents in particular, which is slowly resolved as the child's attitudes towards adults become more stabilized. She states: "The benefits which the nursery school... confers upon its children are bound up with the ease and relief from unconscious (as well as conscious) fear of the parents which the companionship of other children brings to each."

Certain factors in the home have been studied as possible influences on the child's outgoingness and aggressiveness shown in nursery school. These factors may determine the influence group membership would have on the child and his ability to gain support from being in the group.

The Fels Research Station has reported several times on the relationship between democracy in the home and certain behavior traits. Democracy is defined by Laske (12, p.301) as "consultation with the child about policies, explanation of regulations, and a general rationality in relation to him." She reports that children from democratic homes show an active, socially outgoing

type of activity, both of a hostile and domineering nature and of friendly kinds.

Baldwin (2, p.337), in another report, states that of the three factors considered in a Fels study (democracy, warmth, and indulgence), democracy is by far the most important in terms of accounting for the variability of the various subgroup means. Three conclusions were drawn: (1) Children in the Fels population who are raised democratically seem to be rated higher on behavior reflecting an active, socially outgoing type of activity, the hostile and domineering kinds of activity as well as the friendly ones; (2) these children are in a favored position in the groups to which they belong; and (3) these children are generally rated high on activities demanding intellectual curiosity, originality and constructiveness. The effects of indulgence are generally opposite to those of democracy, special effects being physical apprehension, lack of skill in muscle activities.

In a further report Baldwin (3, pp.129-235), in discussing socialization and the parent-child relationship, finds a relationship between democracy and a high level of activity, the child tending to be aggressive, fearless, planful, likely to be the leader in a nursery school situation, but also more cruel. A high activity

level is accompanied during the preschool years by non-conformity and rebelliousness. Control in the home is correlated with decreased quarrelsomeness, negativism and disobedience, and also with decreased aggressiveness, planfullness, tenacity, and fearlessness. Control and lack of democracy seem to produce a quiet, well-behaved, non-resistant child who is at the same time socially unaggressive and restricted in his curiosity, originality, and fancifulness. Authoritarian control obtains conformity, but at the expense of personal freedom in areas which are not intended to be restricted. He concludes that the predominant effect of parent behavior upon the socialization of the preschool child is to raise or lower his willingness to behave actively toward his environment.

In a study comparing the behavior of children in two nursery schools, Musti and Sharpe (14, pp.26-28) found that aggressions were almost twice as frequent in a permissive college nursery school as in a more controlled city nursery. The authors stated: "Because of the rigid control exerted over the children in the city nursery it would seem probable that these children would experience more frequent frustration than the children in the college nursery school. However, the city children showed not only fewer aggressive responses, but less social

interchange of any kind." "These children may have been inhibited in the expression of aggressive drives in social interaction by their anxiety lest they weaken their already uncertain relationships with the adults who look with disapproval upon aggression, or by their fear of retaliation or punishment from the adult." The authors added a comment that the child's aggressions can be understood only when considered as one aspect of his whole pattern of social response. In the more controlled nursery, not only aggression but all types of social response occurred less frequently than in the freer nursery. Furthermore, frequent aggressions meant different things in the cases of different children.

In a study by Anderson (1, pp.459-483), however, domination and activity seem to have a positive correlation. This study was concerned with domination and socially integrative behavior in kindergarten age children. Several samplings were made during the course of a year, and a high tendency was indicated for those children who were dominated more frequently by the teacher in the fall to be the same children who had more conflict situations with the teacher in the winter sampling.

Several studies have made a distinction between policies concerning discipline and feelings about discipline. Cass (4, p.307) makes the observation, at the

conclusion of an investigation of parent-child relationships in terms of awareness, identification, projection, and control, that the degree of conflict in the parent-child relationship is a function, in some degree, of the awareness the parent has for the child's attitudes and of the degree of parental control exerted by the parent. These two variables are thought to operate in opposite directions, to have a negative correlation, with awareness serving as positive reinforcement for the child's identification with the parent and control providing negative reinforcement in this process.

Read (16, pp.95-100) rated the attitudes expressed by parents on two questionnaires by Stogdill and Goddard on parental control of children, and child behavior, and tabulated the parents' attitude scores with the behavior scores of their children obtained by a teacher rating on 67 traits of the Read-Conrad Abbreviated Behavior Inventory for nursery school children. She found that parent attitudes toward child behavior seem to bear little relation to differences in actual child behavior. However, favorable behavior deviations were found to be associated with parental approval of freedom and unfavorable behavior deviations with parental approval of strict control.

# CHAPTER III

## METHOD OF PROCEDURE

### Setting

In observing the way in which children in groups "test out" by non-conforming behavior the limits set by adults, it was necessary to find a relatively stable situation in terms of the children and adults who would be present, physical plant, and events included. The situation needed to involve a group since group membership would provide the child with additional support in testing the adult which he might not have had at home. The standards needed to be the same for all children, and the adults as consistent as possible in their enforcement of these standards. A procedure was needed which, in a systematic manner, would obtain uniform data in a controlled situation in which there were definite limits of which the children were aware.

Rather than set up an experimental situation, which would not be natural or necessarily valid, a routine situation in the Park Terrace nursery school was selected as the best time in which to make observations. The morning rest period came at a regular time in the morning, about 11:30, after the children had had a story or music period and had come upstairs for a routine of toileting

and washing. The school had two nap rooms, one containing seven beds and one containing nine. Although this limited the size of the group which could be observed, the advantages were considered greater than this disadvantage.

Certain things were expected of the children during the nap period. They were to remain on their beds, preferably lying down, and reasonably quiet. Adults were present in the room, and there was ample opportunity for a child to assert himself against the adult-imposed limits if he wished. The reaction of the adults to most testing incidents was directed toward the goal of maintaining a quiet and restful nap room. The most severe discipline used was removal of a child from the room until he was able to refrain from disturbing the other children.

The children in this study were at the age where they would normally begin to resist naps. The nursery school rest period perhaps involves a problem of self-assertion to a greater degree than do most other routines to those children who are growing out of the need for an afternoon nap, and who interpret the rest at school as another "nap." Five of the children had discarded naps, one during the course of the study.

The children at nursery school entered the nap room individually as they finished washing, usually removed their shoes, and laid down on their beds. Records were occasionally played during the period. When preparations for lunch had been completed by the college students and the school cook, a student came upstairs to notify the teacher in charge of the room. Length of the rest period varied according to the length of time required to get ready for lunch. It usually lasted twelve to fifteen minutes, sometimes as long as twenty.

During the first two weeks of observation, the teacher in the room first observed was a staff member. The third week marked the beginning of winter term. From this week on, the teacher present was sometimes a staff member and sometimes a student teacher. While this may have made a difference in the behavior of the children at the beginning of the term, the student teachers were for the most part accepted by the children as regular teachers since each of them taught in the nursery school four out of five days during the week.

While making her observations, the observer, an assistant teacher, sat in the same place every day in the nap room and did not participate. At first the children expected her to act in her usual role of teacher, but

they became used to her inactive role and directed their attention to the other adults when they wanted a teacher. The stop watch used was also a little disturbing to the children at first, but was soon accepted.

Subjects

Sixteen children were included in the study, eight boys and eight girls (see Table I). These children were enrolled in the Park Terrace nursery school which serves primarily the children of students at Oregon State College. In the families of ten of these children, the father was a student at the college. Both of the parents of JoAnne, Nikko and Ricky were attending college.

The ages of the children at the beginning of the study ranged from four years, six months to three years, eight months. Margie and Alan were the youngest children and JoAnne was the oldest. All of the children were within ten months of each other in age, representing a very homogeneous group in this respect. Ricky had been enrolled almost four terms and Danny, two terms, at the beginning of the study. The rest of the children had entered nursery school between September and February, during the fall and winter terms. Four children, Linda, Linden, Alan, and Margie, were observed in the nap room at the beginning of their nursery school enrollment. The

TABLE I

Data on Subjects in Study

| Child's name | Birth date | Date of entrance to school | Child naps in afternoon | Child naps alone | Sib. rel. X-child S-sister B-brother | Mother | | Father | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Student | Work | Homemaker | Student | Work |
| Alan | 4/10/50 | 1/13/54 | X | X | Twin-S | | | X | | X |
| Anne | 2/8/50 | 9/22/54 | | | X B | | X | | | X |
| Betty | 8/15/49 | 10/6/53 | X | X | S X | | X | | | X |
| Brian | 3/20/50 | 10/29/53 | X | X | B X | | | X | | X |
| Danny | 7/24/49 | 5/15/53 | X | X | X B | | | X | X | |
| JoAnne | 7/4/49 | 9/21/53 | | | S X S | X | | | X | |
| Linda | 1/30/50 | 12/1/53 | X | X | X | | X | | X | |
| Linden | 4/1/50 | 1/26/54 | X | X | X | | X | | | X |
| Margie | 4/10/50 | 1/13/54 | X | X | Twin-B | | | X | | X |
| Marjorie | 3/27/50 | 9/24/53 | X | X | B X S | | | X | X | |
| Nikko | 12/16/49 | 11/2/53 | X | X | X B | X | | | X | |
| Ricky | 8/15/49 | 10/30/52 | | | X | X | | | X | |
| Sandy | 7/18/49 | 9/21/53 | | | S B S X | | X | | X | |
| Scott | 11/4/49 | 9/30/53 | | | X S | | | X | X | |
| Steven M. | 10/26/49 | 9/30/53 | X | | X S | | | X | X | |
| Steve S. | 3/22/50 | 9/23/53 | X | | X S | | | X | X | |

other children had been in the school for a period of time before the observations began.

Eleven of the children were first children, three of these, Linda, Linden, and Ricky, being the only child in their families. Margie and Alan were twins. Most of the families consisted of two children, but there were three in the families of JoAnne and Marjorie, and Sandy was the youngest of four children. This means that as far as the majority of the children were concerned, nursery school probably represented the first sustained group experience, outside of a two-child group at home where the difference in age in all cases was greater than the ten-month range within the school.

Anne, JoAnne, Sandy, Scott, and Ricky no longer took naps in the afternoon, Scott having given up his nap while the observations were being made. The rest of the children did rest regularly, and all rested in a room alone except Steven M. and Steve S.

## Observations

A total of 199 observations were made over a period of ten weeks, beginning December 7, 1953, and ending March 12, 1954. The observations were divided into two series, the first five weeks being spent in the larger nap room of the nursery school and the second five weeks

in the smaller. A period of three weeks elapsed between the second and third weeks of observation in the first series due to Christmas vacation. The second series of observations were not broken.

These observations consisted of records of the interactions between the children in the nap room. These records were made on diagrams of the nap room. To prepare this observation sheet, a floor plan of each nap room was drawn with the placement of the children's cots indicated (see Figures II, III, Appendix). The method of making observations was suggested by Vaughn and Faber (20, pp.33-36) and modified to suit the requirements of this study. In their study of participation of kindergarten children in shared activities, observations on a time-sampling basis were made on a map of the situation observed, and the data categorized later.

In the present study, one of the nap room charts was used for every three minutes of observation. The observations were started as soon as the second child entered the room, "group" in this sense meaning more than one child. During a three-minute period, the first two minutes were spent making notations on the children's activity, and the third minute was used to complete the notes on that observation. As each child entered the room, his name was written on the square representing his bed on

the chart of the room. In this way it was possible, when examining the chart later, to see how many children had been in the room during a particular observation and who they were.

When a child began an activity, such as talking or laughing, which was imitated by another child, an arrow was drawn from the child initiating the activity to the child who followed, and a number was assigned to the arrow according to its order in the events of that observation. Symbols were used to designate frequently observed types of activity, such as vvv for a verbal noise and mmmmm for talking. If the observer wishes to make further comments on the particular incident, notes with numbers corresponding to the arrows were made on the sheet also.

The activity on the observation sheets was tallied for each child in three categories: leading, following, and playing the adult role. "Leading" behavior consisted of any activity which the child initiated himself. A tally was also made in this category for activity which was obviously intended to stimulate another child, even though no response was obtained:

> 2/25/54. Nikko squeaks doll; no response. Nikko kicks feet on bed, laughs, sings, hoots. The other children ignore her.

Unintentional stimulation of another child was grouped with intentional because the activity and the fact that it was reflected by another member of the group were important in this study, and not the means of reflection.

When a child imitated the activity of another child, or when the activity of another child stimulated him to some activity, his response was tallied as "following":

2/10/54. Ricky enters, removes shoes, making roaring noises. Danny grins. Ricky: "Quack, quack." Danny hits his blanket with his fist. Ricky laughs, continues.

Sometimes a child assumed the adult role, enforcing an adult-imposed standard or scolding the other children for violating a nap room standard:

1/15/54. Sandy: "Be quiet. Stop that, you kids."
3/17/54. Linden: "Stop. It's rest time."
2/8/54. Sandy climbs off her bed. Scott, accusingly, "Look at Sandy. Look at her."

"Watching" was considered a passive form of testing, in which the child learned what the adult response would be by watching what happened when another child defied the adult standard. It was discarded as a category, however, because of the difficulty involved in making an accurate record. It was not always possible to tell whether or not a child was interested in the activity of another child, or if the interest shown was in the

conflict between the adult's standard and the child's self-assertion.

No attempt was made to record what the adult did or how the limit was set. The study was confined to the character of the child's testing out by leading or following in doing unacceptable things.

During the first series of observations, the number of three-minute observations made during one rest period ranged from three to six. Eighty-nine observations, representing 267 minutes, were made on a total of twenty-two days, with an average of four observations per day.

One hundred and ten observations in 330 minutes were made on a total of twenty-four days during the second series of observations. The range was from two to seven observations, or an average of four and one-half observations per day.

The number of minutes in which each child was actually observed (two minutes out of each three) ranged from twenty-six to 272, with a mean of 112.5 minutes per child, and a median of 120 minutes. One child, Sandy, was included in both series of observations because she was moved from the first nap room to the second at the beginning of the second series of observations.

# CHAPTER IV

## DISCUSSION OF RESULTS

### A. Information on Individual Activity

After the incidents involving leading, following, and playing the adult role were tallied for each child, the number in each category was divided by minutes of observation for the child to obtain an activity ratio of incidents-per-minute.

It was found that the ratios for leading, following, and playing the adult role varied among the children observed (see Table II). Different children showed different patterns. For each child, the activity ratios varied from week to week. While some children tended to lead more than they followed, or to follow more than they led, the majority of the children showed some variation in the relative amounts of leading and following during the period of observation. Furthermore, variation was evident within the group. A child who did the most leading in the group one week did not necessarily dominate the following week.

Following through Marjorie's pattern of behavior will illustrate these points. In leading, for instance, the ratios of incidents-per-minute for Marjorie were .13, .50, .72, .38, and .63 for each of the five weeks,

TABLE II

Weekly Behavior of Individual Children at Nap Time Grouped According to Activity

| Activity | | Alan | Anne | Brian | Danny | Jo-Anne | Linda | Margie | Marjorie | Ricky | Sandy |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FIRST NAP ROOM OBSERVED | | | | | | | | | | | |
| Week I. Minutes observed | | | | | | | | | | | |
| Leading | | | 34 | 16 | 6 | 26 | 6 | | 30 | | 30 |
| Incidents: | Number | | 15 | 11 | 3 | 1 | | | 4 | | 14 |
| | Ratio | | .44 | .68 | .50 | .03 | | | .13 | | .46 |
| Following | | | | | | | | | | | |
| Incidents: | Number | | 14 | 3 | 2 | 3 | | | 11 | | 16 |
| | Ratio | | .41 | .18 | .33 | .11 | | | .36 | | .53 |
| Playing | | | | | | | | | | | |
| Adult role: | Number | | 3 | | | | | | 1 | | |
| | Ratio | | .08 | | | | | | .03 | | |

TABLE II (Cont.)

| Activity | | Alan | Anne | Brian | Danny | Jo-Anne | Linda | Margie | Marjorie | Ricky | Sandy |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Week II. Minutes observed | | | | 8 | 30 | 30 | 32 | | 30 | 28 | |
| Leading Incidents: | Number | | | 3 | 9 | 4 | | | 15 | 9 | |
| | Ratio | | | .37 | .30 | .13 | | | .50 | .32 | |
| Following Incidents: | Number | | | 3 | 12 | 5 | 1 | | 3 | 11 | |
| | Ratio | | | .37 | .43 | .16 | .03 | | .10 | .39 | |
| Playing Adult role: | Number | | | | 3 | | | | 5 | | |
| | Ratio | | | | .10 | | | | .16 | | |
| Week III. Minutes observed | | | | 26 | | | 26 | | 36 | 38 | 36 |
| Incidents: | Number | | | 12 | | | | | 26 | 9 | 21 |
| | Ratio | | | .46 | | | | | .72 | .23 | .58 |
| Following Incidents: | Number | | | 13 | | | 1 | | 17 | 17 | 13 |
| | Ratio | | | .50 | | | .03 | | .47 | .44 | .35 |
| Playing Adult role: | Number | | | 1 | | | 1 | | 2 | | 1 |
| | Ratio | | | .03 | | | .03 | | .02 | | .02 |

TABLE II (Cont.)

| Activity | | Alan | Anne | Brian | Danny | Jo-Anne | Linda | Margie | Marjorie | Ricky | Sandy |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Week IV. Minutes observed | | | | 26 | | 10 | | | 18 | 26 | 18 |
| Leading Incidents: | Number | | | 12 | | | | | 7 | 5 | 13 |
| | Ratio | | | .46 | | | | | .38 | .19 | .72 |
| Following Incidents: | Number | | | 2 | | 1 | | | 12 | 12 | 7 |
| | | | | .07 | | .10 | | | .66 | .46 | .38 |
| Playing Adult role: | Number | | | | | | | | | | 2 |
| | Ratio | | | | | | | | | | .11 |
| Week V. Minutes observed | | 26 | | | | | 16 | 32 | 36 | 42 | 24 |
| Leading Incidents: | Number | 1 | | | | | | 5 | 23 | 13 | 9 |
| | Ratio | .03 | | | | | | .15 | .63 | .30 | .37 |
| Following Incidents: | Number | 4 | | | | | 3 | 1 | 10 | 15 | 7 |
| | Ratio | .15 | | | | | .08 | .03 | .27 | .33 | .29 |
| Adult role: | Number | 2 | | | | | | 2 | 1 | | |
| | Ratio | .07 | | | | | | .06 | .02 | | |

TABLE II (Cont.)

| Activity | | Betty | Linden | Nikko | Sandy | Scott | Steven M. | Steve S. |
|---|---|---|---|---|---|---|---|---|
| SECOND NAP ROOM OBSERVED | | | | | | | | |
| Week I. Minutes observed | | 36 | 30 | | 24 | 30 | 12 | |
| Leading Incidents: | Number | 3 | 2 | | 10 | 5 | 8 | |
| | Ratio | .08 | .08 | | .41 | .16 | .75 | |
| Following Incidents: | Number | 6 | | | 3 | 13 | 1 | |
| | Ratio | .16 | | | .12 | .40 | .08 | |
| Playing Adult role: | Number | | | | 2 | 1 | | |
| | Ratio | | | | .08 | .03 | | |

TABLE II (Cont.)

| Activity | | Betty | Linden | Nikko | Sandy | Scott | Steven M. | Steve S. |
|---|---|---|---|---|---|---|---|---|
| Week II. Minutes observed | | 54 | 52 | 26 | 46 | 52 | 50 | 34 |
| Leading Incidents: | Number | | | | 22 | 41 | 9 | 10 |
| | Ratio | | | | .47 | .78 | .18 | .29 |
| Following Incidents: | Number | 3 | 2 | 4 | 16 | 22 | 10 | 16 |
| | Ratio | .07 | .03 | .15 | .34 | .42 | .20 | .47 |
| Playing Adult role: | Number | | 2 | 2 | 1 | 1 | | |
| | Ratio | | .03 | .07 | .02 | .01 | | |
| Week III. Minutes observed | | 38 | 46 | 30 | 34 | 38 | 42 | 26 |
| Leading Incidents: | Number | 5 | 4 | 11 | 18 | 30 | 1 | 5 |
| | Ratio | .13 | .08 | .33 | .52 | .78 | .02 | .19 |
| Following Incidents: | Number | 3 | 11 | 12 | 15 | 11 | 10 | 4 |
| | Ratio | .07 | .22 | .40 | .44 | .28 | .22 | .15 |
| Playing Adult role: | Number | | 3 | | 2 | 4 | | |
| | Ratio | | .06 | | .05 | .10 | | |

TABLE II (Cont.)

| Activity | | Betty | Linden | Nikko | Sandy | Scott | Steven M. | Steve S. |
|---|---|---|---|---|---|---|---|---|
| Week IV. Minutes observed | | 42 | 36 | 42 | 32 | 36 | 44 | |
| Leading | | | | | | | | |
| Incidents: | Number | 6 | 1 | 20 | 5 | 23 | | |
| | Ratio | .28 | .05 | .90 | .31 | 1.27 | | |
| Following | | | | | | | | |
| Incidents: | Number | 2 | 4 | 19 | 7 | 9 | 3 | |
| | Ratio | .09 | .22 | .90 | .41 | .50 | .13 | |
| Playing | | | | | | | | |
| Adult role: | Number | | | 1 | | 2 | 1 | |
| | Ratio | | | .04 | | .11 | .04 | |
| Week V. Minutes observed | | 40 | 8 | 34 | 28 | 26 | | |
| Leading | | | | | | | | |
| Incidents: | Number | 3 | 1 | 15 | 9 | 16 | | |
| | Ratio | .15 | .25 | .88 | .64 | 1.23 | | |
| Following | | | | | | | | |
| Incidents: | Number | 2 | 2 | 15 | 6 | 10 | | |
| | Ratio | .10 | .50 | .88 | .42 | .76 | | |
| Playing | | | | | | | | |
| Adult role: | Number | | | 1 | 2 | 4 | | |
| | Ratio | | | .05 | .14 | .30 | | |

respectively. During the first week, Brian dominated the activity of the room, with Danny and Anne also high in leading. Marjorie's activity was low, and she followed more than she led. However, the second week and the third week show a great change, Marjorie being the most active child in the room, and leading more than she followed. Her activity dropped again during the fourth week, Sandy taking the leadership during this period, but again, the last week of observation, Marjorie's leading and total activity were the highest in the room.

A child's weekly leading and following ratios were totals of the number of incidents each week divided by the number of minutes of observation and were thus influenced by variation in the daily activity of the child. A ratio of total leading and following activities for the five-weeks period reduced the effect of daily variation and presented a more typical picture of the child's average behavior (see Table III). Again, the total activity ratio, obtained by combining all leading and following incidents for each child, varied among the children.

The correlation between leading and following activity ratios for each child was plus .76 and was significant at the .5 per cent level as determined by Fisher's t, which means that there were less than five chances in 1000 of getting a chance correlation of this magnitude

TABLE III

Behavior of Individual Children at Nap Time Grouped According to Activity Over a Five-week Period

| | Minutes observed | Leading incidents No. | Leading incidents Ratio | Following incidents No. | Following incidents Ratio | Playing adult role No. | Playing adult role Ratio | Total leading and following incidents No. | Total leading and following incidents Ratio |
|---|---|---|---|---|---|---|---|---|---|
| FIRST NAP ROOM OBSERVED | | | | | | | | | |
| Alan | 26 | 1 | .03 | 4 | .15 | 2 | .19 | 5 | .19 |
| Anne | 34 | 11 | .44 | 19 | .55 | 3 | .08 | 34 | 1.00 |
| Brian | 76 | 38 | .50 | 32 | .41 | 1 | .01 | 70 | .94 |
| Danny | 36 | 12 | .33 | 15 | .41 | 3 | .08 | 27 | .75 |
| JoAnne | 56 | 5 | .08 | 8 | .14 | 0 | .00 | 13 | .23 |
| Linda | 90 | 0 | .00 | 7 | .07 | 1 | .01 | 7 | .07 |
| Margie | 32 | 5 | .15 | 3 | .03 | 2 | .06 | 6 | .18 |
| Marjorie | 150 | 75 | .50 | 53 | .35 | 8 | .05 | 128 | .85 |
| Ricky | 124 | 36 | .20 | 55 | .44 | 0 | .00 | 91 | .73 |
| Sandy | 108 | 57 | .52 | 43 | .39 | 3 | .02 | 100 | .93 |

TABLE III (Cont.)

| | Minutes observed | Leading incidents No. | Leading incidents Ratio | Following incidents No. | Following incidents Ratio | Playing adult role No. | Playing adult role Ratio | Total leading and following incidents No. | Total leading and following incidents Ratio |
|---|---|---|---|---|---|---|---|---|---|
| SECOND NAP ROOM OBSERVED | | | | | | | | | |
| Betty | 210 | 17 | .08 | 17 | .08 | 0 | .00 | 34 | .16 |
| Linden | 172 | 8 | .04 | 19 | .11 | 5 | .02 | 27 | .15 |
| Nikko | 132 | 46 | .34 | 50 | .38 | 4 | .03 | 96 | .73 |
| Sandy | 164 | 59 | .31 | 57 | .34 | 7 | .04 | 116 | .70 |
| Scott | 182 | 115 | .62 | 65 | .35 | 12 | .06 | 180 | .98 |
| Steven M. | 148 | 22 | .14 | 24 | .16 | 1 | .07 | 46 | .31 |
| Steve S. | 60 | 15 | .25 | 20 | .33 | 0 | .00 | 35 | .58 |
| Sandy (combined) | 272 | 116 | .42 | 100 | .36 | 10 | .03 | 216 | .79 |

(see Table IV). The tendency indicated was for both ratios to increase in direct relation to each other, rather than for a child to lead a great deal and follow little, or to follow a great deal but seldom lead. When the leading and following ratios for all of the children were compared with the averages for each of these areas, it was found that all but two of the sixteen children observed, Ricky and Steve S., were either above or below the average in both leading and following.

TABLE IV

Correlation Between Leading-Incidents-Per Minute Ratios and Following-Incidents-Per-Minute Ratios

| Child | Leading-incidents-per-minute ratios | Following-incidents-per-minute ratios |
|---|---|---|
| Alan | .03 | .15 |
| Anne | .44 | .55 |
| Betty | .08 | .08 |
| Brian | .50 | .41 |
| Danny | .33 | .41 |
| JoAnne | .08 | .14 |
| Linda | .00 | .07 |
| Margie | .15 | .03 |
| Marjorie | .50 | .35 |
| Nikko | .34 | .38 |
| Ricky | .20 | .44 |
| Sandy | .42 | .36 |
| Scott | .62 | .35 |
| Steven M. | .14 | .16 |
| Steve S. | .25 | .33 |

$r = .76$
$t = 4.35$ with 14 degrees of freedom.

The correlation between age in months at the beginning of the study and total activity ratio was negative and very low, minus .22 (see Table XVIII, Appendix). A very slight positive correlation of .30 appeared between months enrolled in nursery school at the beginning of the study and total activity ratio (see Table XIX, Appendix). However, examination of the activity ratios of Linden and Linda, who were observed at the beginning of their nursery school enrollment reveals an increase in activity from the first week to the last observed. Linda did not lead at any time, but her following ratios for the five weeks, respectively, were .00, .03, .03, .10, and .08. Linden's leading ratios for the five weeks were .08, .00, .08, .05, and .25. His following ratios were .00, .03, .22, .22, and ,50. Margie and Alan were also observed at the beginning of their enrollment, but only for one week so no trends can be examined.

Correlations were not worked out to determine the relationship of activity to whether or not the child still had an afternoon nap. These children are Anne (total activity ratio of 1.00), JoAnne (.23), Ricky (.73), Sandy (.79), and Scott (.98). The average total activity ratio for these five children is .54, where the average for the group is .55 (see Table V), which seems to indicate that giving up naps was not a stimulating

factor since it did not differentiate this group from the total group.

The activity ratios of the children who did not rest alone were .31 for Steven M. and .58 for Steve S. They are slightly below average as a group, but the low number of children makes conclusions difficult to draw.

When the average (mean) leading, following, and total activity ratios and standard deviations from the mean were computed for the two nap rooms observed, no great discrepancies appeared between the two groups of children (see Table V). The average leading ratio for the first nap room observed was .27, and standard deviation, .20. The average leading ratio for the second nap room observed was .27, and standard deviation, .19. The means and standard deviations for following and total activity are almost as close for the two nap room groups.

The average (ratio for total) activity for all children was .55 incidents per minute, with a standard deviation of .17. While one child was approximately average, having a ratio of .58, all the other children were either one standard deviation or more above or below the mean. This seems to indicate a division of the children into a more active and less active grouping.

It is possible that with a large group the distribution might be spread along a continuum instead of being

TABLE V

Mean* Total Activity Ratios and Standard Deviations From the Mean for the Two Nap Rooms Observed for Leading, Following, and Total Activity

| | First nap room observed | Second nap room observed | First and second rooms combined |
|---|---|---|---|
| NUMBER OF CHILDREN IN NAP ROOM | 10 | 7 | 17** |
| LEADING | | | |
| Sum of ratios of all the children | 2.75 | 1.78 | 4.53 |
| Mean ratio for the group | .27 | .27 | .26 |
| Standard deviation from the mean | .20 | .19 | .19 |
| FOLLOWING | | | |
| Sum of ratios of all the children | 2.94 | 1.75 | 4.69 |
| Mean ratio for the group | .29 | .25 | .27 |
| Standard deviation from the mean | .17 | .12 | .15 |
| TOTAL ACTIVITY | | | |
| Sum of ratios of all the children | 5.87 | 3.61 | 9.48 |
| Mean ratio for the group | .58 | .51 | .55 |
| Standard deviation from the mean | .19 | .16 | .17 |

*Mean: Sum of ratios of all the children divided by the number of children in the group.

**Sandy was observed in both nap rooms.

so sharply divided. The children in this study will be considered in the two categories of more active and less active, since in this situation and according to these data, they are in two distinct groups.

The division of the children into these groups was approximately even. Seven children were less active and eight were more active. Steve S., the child whose total activity score was just above average, will be included in the more active group because, in the rankings of following activity, he joined the active group and did not join the inactive at any time. This makes a total of nine more active children and seven less active. The nine children who did the most leading also did the most following. The seven children who did the least leading also did the least following (see Table VI).

TABLE VI

Rank Order of Leading, Following, and Total Activity Ratios for All Children Observed

| | Leading | Following | Total activity |
|---|---|---|---|
| More active children | Scott | Anne | Anne |
| | Sandy (2nd nap room) | Ricky | Scott |
| | Brian, Marjorie | Brian, Danny | Brian |
| | Anne | Sandy (1st nap room) | Marjorie |
| | Nikko | Nikko | Sandy (both rooms) |
| | Danny | Marjorie, Scott | Danny |
| | Sandy (1st nap room) | Sandy (2nd nap room) | Nikko, Ricky |
| | Steven S. | Steve S. | Steve S. |
| | Ricky | | |
| Less active children | Margie | Steven M. | Steven M. |
| | Steven M. | Alan | JoAnne |
| | Betty, JoAnne | JoAnne | Alan |
| | Linden | Linden | Margie |
| | Alan | Betty | Betty |
| | Linda | Linda | Linden |
| | | Margie | Linda |

The method of testing out adult limits was noted during the observations but was not analyzed according to categories. Most of the testing was verbal in form, either verbal noises, such as hooting, laughing, making engine noises, or talking. The far greater part of the talking was between children, rather than between a teacher and a child.

B. Relationship of Individual and Group Activity to the Size of the Group

During the observations, the size of the group in the nap rooms ranged from two to seven children. The average amount of activity in each size of group was determined in order to discover what effect, if any, the number of children in the group had upon the behavior of individual children. It was found that as the size of the group increased, the mean of the leading, following, and total activity incidents per observation increased also (see Table VII). For instance, in the first nap room observed, the average leading incident per observation increased, as the size of the group increased from two to six, in the following proportions: 1.75, 1.78, 2.82, 3.83, and 3.85. The average following incident per minute in the second nap room observed increased in these proportions: .2, 1.25, 1.50, 2.18, 2.50, and 3.59.

However, when the average incident per observation is divided by the number of children in each size of group to obtain the mean activity per child, no trend is evident. In fact, the figures on the table show that the amount of activity per child remains relatively stable throughout the six different group sizes observed. The range of total leading and following incidents per child

TABLE VII

Activity of the Group Related to Number of Children Present

| | Two children in group | | | Three children in group | | |
|---|---|---|---|---|---|---|
| | Leading | Following | Total activity | Leading | Following | Total activity |
| FIRST NAP ROOM OBSERVED | | | | | | |
| Total number of incidents | 14 | 9 | 23 | 34 | 32 | 66 |
| Number of observations | 8 | | | 19 | | |
| Average incidents per observation | 1.75 | 1.12 | 2.87 | 1.78 | 1.67 | 3.47 |
| SECOND NAP ROOM OBSERVED | | | | | | |
| Total number of incidents | 3 | 1 | 4 | 26 | 20 | 46 |
| Number of observations | 5 | | | 16 | | |
| Average incidents per observation | .6 | .2 | .8 | 1.62 | 1.25 | 2.87 |

TABLE VII (Cont.)

| | Two children in group | | | Three children in group | | |
|---|---|---|---|---|---|---|
| | Leading | Following | Total activity | Leading | Following | Total activity |
| FIRST AND SECOND NAP ROOMS COMBINED | | | | | | |
| Total number of incidents | 17 | 10 | 27 | 60 | 52 | 112 |
| Number of observations | 13 | | | 35 | | |
| Average incidents per observation | 1.30 | .76 | 2.07 | 1.71 | 1.50 | 3.20 |
| Average incidents per observation divided by number of children in group | .65 | .38 | 1.00 | .57 | .50 | 1.06 |

TABLE VII (Cont.)

| | Four children in group | | | Five children in group | | |
|---|---|---|---|---|---|---|
| | Leading | Following | Total activity | Leading | Following | Total activity |
| FIRST NAP ROOM OBSERVED | | | | | | |
| Total number of incidents | 48 | 43 | 91 | 142 | 126 | 268 |
| Number of observations | 17 | | | 37 | | |
| Average incidents per observation | 2.82 | 2.52 | 5.35 | 3.83 | 3.40 | 1.16 |
| SECOND NAP ROOM OBSERVED | | | | | | |
| Total number of incidents | 58 | 42 | 100 | 40 | 35 | 75 |
| Number of observations | 28 | | | 16 | | |
| Average incidents per observation | 2.07 | 1.50 | 3.75 | 2.50 | 2.18 | 4.68 |

TABLE VII (Cont.)

| | Four children in group | | | Five children in group | | |
|---|---|---|---|---|---|---|
| | Leading | Following | Total activity | Leading | Following | Total activity |
| FIRST AND SECOND NAP ROOMS COMBINED | | | | | | |
| Total number of incidents | 106 | 85 | 191 | 182 | 161 | 343 |
| Number of observations | 45 | | | 53 | | |
| Average incidents per observation | 2.31 | 1.88 | 4.22 | | | |
| Average incidents per observation divided by number of children in group | .57 | .47 | 1.05 | .68 | .60 | 1.28 |

TABLE VII (Cont.)

| | Six children in group | | | Seven children in group | | |
|---|---|---|---|---|---|---|
| | Leading | Following | Total activity | Leading | Following | Total activity |
| FIRST NAP ROOM OBSERVED | | | | | | |
| Total number of incidents | 27 | 20 | 47 | | | |
| Number of observations | 7 | | | | | |
| Average incidents per observation | 3.85 | 2.85 | 6.71 | | | |
| SECOND NAP ROOM OBSERVED | | | | | | |
| Total number of incidents | 65 | 56 | 123 | 93 | 87 | 180 |
| Number of observations | 22 | | | 22 | | |
| Average incidents per observation | 2.95 | 2.50 | 5.59 | 4.22 | 3.95 | 8.18 |

TABLE VII (Cont.)

| | Six children in group | | | Seven children in group | | |
|---|---|---|---|---|---|---|
| | Leading | Following | Total activity | Leading | Following | Total activity |
| FIRST AND SECOND NAP ROOMS COMBINED | | | | | | |
| Total number of incidents | 92 | 76 | 169 | 93 | 87 | 180 |
| Number of observations | 29 | | | 22 | | |
| Average incidents per observation divided by number of children in group | .52 | .43 | .97 | .60 | .55 | 1.16 |

per observation is between .97 and 1.28, the order being 1.00, 1.06, 1.05, 1.28, .97, and 1.16. There is no consistent trend in increase.

The conclusion suggested is that while there is more activity as the size of the group increases, this activity is due to the fact that there are increasingly more children present to be active, and not because the size of the group has an increasingly stimulating effect on the individual child.

When the activity of each child in each group is examined, this conclusion is supported by the lack of trends apparent (see Table VIII). A ratio of incidents per observation was obtained for each child, and multiplied by ten to give a larger number with which to work. Sandy's ratios for following can be used to illustrate the lack of effect which size of the group had on the children. When there were two children in the group, Sandy's following ratio was 0. It was 7 when three children were in the group, 5.66 when there were four, 7.02 when there were five, 8.14 when there were six, and 7.72 when there were seven children in the group. While neither group in the two nap rooms became very large, these data would indicate that the results of observations of larger groups would probably be similar to

TABLE VIII

Activity of Each Child as Related to Size of Group

RATIO: $\frac{\text{incidents}}{\text{observations}} \times 10$

| | Number of children in group | | | | | |
|---|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 | 7 |
| LEADING | | | | | | |
| Alan | 0 | 0 | 5 | 0 | 0 | |
| Anne | | 7.5 | 10 | 5 | 10 | |
| Betty | 0 | 1.81 | 2.59 | 0 | 1.35 | 2.27 |
| Brian | 10 | 10 | 22 | 10 | 0 | |
| Danny | 5 | 10 | 0 | 12.5 | 10 | |
| JoAnne | 10 | 0 | 1.66 | 1.76 | 0 | |
| Linda | 0 | 0 | 0 | 0 | | |
| Linden | 3.33 | 1.42 | 1.76 | 0 | 1.35 | 4.5 |
| Margie | | 0 | 0 | 7.5 | 2.5 | |
| Marjorie | 16.66 | 12.5 | 5.71 | 10.26 | 11.66 | |
| Nikko | 0 | 14.28 | 6.66 | 7.5 | 7.77 | 3.63 |
| Ricky | 4 | 4.28 | 6.25 | 6.06 | 12 | |
| Sandy | 8 | 2 | 11 | 13.24 | 7.47 | 9.54 |
| Scott | 0 | 10 | 9.44 | 10.66 | 14.09 | 17.02 |
| Steven M. | | 0 | .9 | 5.71 | 1.81 | 2.27 |
| Steve S. | | | 0 | 0 | 0 | 5.44 |
| Total | 1.3 | 1.71 | 2.31 | 3.43 | 3.17 | 4.22 |
| FOLLOWING | | | | | | |
| Alan | 0 | 0 | 5 | 7.5 | 0 | |
| Anne | | 5 | 10 | 9.99 | 5 | |
| Betty | 0 | 0 | 1.49 | 3.75 | .9 | .9 |
| Brian | 0 | 3.33 | 4 | 6.95 | 10 | |
| Danny | 15 | 5 | 0 | 7.5 | 10 | |
| JoAnne | 0 | 0 | 1.66 | 5.29 | 0 | |
| Linda | 10 | 0 | 3.33 | 1.61 | 2.8 | |
| Linden | 3.33 | 1.42 | 1.1 | .66 | 2.27 | 4.09 |
| Margie | | 0 | 2 | 0 | 0 | |
| Marjorie | 0 | 7.5 | 10 | 6.41 | 6.66 | |
| Nikko | 0 | 10 | 8.66 | 5 | 7.22 | 5.44 |
| Ricky | 12 | 4.28 | 15.55 | 8.48 | 4 | |
| Sandy | 0 | 7 | 5.66 | 7.02 | 8.14 | 7.72 |
| Scott | 5 | 6.92 | 5.55 | 10 | 5 | 8.63 |
| Steven M. | | 3.33 | 1.81 | 2.14 | 2.72 | 4.09 |
| Steve S. | | | 0 | 2.5 | 5.71 | 6.81 |
| Total | .76 | 1.5 | 1.88 | 3.03 | 2.62 | 3.95 |

TABLE VIII(Cont.)

| | Number of children group | | | | | |
|---|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 | 7 |
| TOTAL ACTIVITY | | | | | | |
| Alan | 0 | 0 | 10 | 7.5 | 0 | |
| Anne | | 12.5 | 18 | 15 | 15 | |
| Betty | 0 | 1.8 | 4.44 | 3.75 | 2.31 | 3.18 |
| Brian | 10 | 13.33 | 26 | 16.95 | 10 | |
| Danny | 20 | 15 | 0 | 20 | 20 | |
| JoAnne | 10 | 0 | 11.66 | 7.05 | 0 | |
| Linda | 10 | 0 | 3.33 | 1.61 | 2.8 | |
| Linden | 6.66 | 2.85 | 2.94 | .66 | 3.63 | 4.5 |
| Margie | | 0 | 2 | 7.5 | 2.5 | |
| Marjorie | 16.66 | 20 | 15.71 | 16.84 | 18.33 | |
| Nikko | 0 | 25.71 | 15.33 | 12.5 | 3.63 | 4.54 |
| Ricky | 16 | 8.57 | 23.75 | 14.84 | 16 | |
| Sandy | 8 | 12 | 16.33 | 15.71 | 14.81 | 17.27 |
| Scott | 5 | 16.92 | 15 | 20.66 | 19.09 | 26.36 |
| Steven M. | | 3.33 | 2.72 | 7.85 | 4.54 | 6.36 |
| Steve S. | | | 0 | 2.5 | 5.71 | 12.27 |
| Total | 2.07 | 3.2 | 4.22 | 6.47 | 5.82 | 8.18 |

these. Group size, in itself, is not an important factor in the individual behavior of these children.

There was a slight tendency for atypical behavior to occur in the two-child group. For certain children, such as Nikko and Scott, being in a group lost its stimulating characteristic when only one other child was present. For other children such as Linda and Linden, the smaller group seemed to be a situation in which they felt freer to assert themselves. These two children were the only child in their families. When this pattern occurred in the case of JoAnne, it is possible that the activity represented a feeling of rivalry with the other child for the attention of the adult, as it might in her home.

C. Relationship of the Activity of Each Child to the Activity of the Group

Even though the size of the group had no observable effect on the behavior of the individual child, the possibility remained that the group did have some influence in the very essence of its characteristic of "groupness." While the data on the amount of leading and following in which a child engaged furnished a means of comparing his relative activity with that of other children, it did not reveal the relationship of this activity

to the inactivity of the rest of the group. A child's leading ratio might be high for that child, but in order to evaluate this ratio fully, it was necessary to have some way of comparing it to the total amount of following done while that child was present to discover the percentage of following incidents in which the group followed that child. If this percentage were high, the logical conclusion could be that when that child was present in the group, it tended to follow him. If the percentage were low, it could be assumed that the presence of that child in the group had little effect on the activity of the other children.

These data were drawn up on a chart (see Table IX) which can be interpreted as follows: Alan has been observed 26 minutes. During this time, he was led in some activity by the group four times, or at a rate of .15 times per minute. He was followed one time, or at a rate of .03 times per minute.

While Alan was present in the group, but not necessarily involved, children present led the group in some activity thirty-one times, or at a rate of 1.19 times per minute, and followed the group twenty-four times, or at a rate of .92 times per minute.

In order to estimate the effect of Alan's presence on the activity of the group, the ratio of incidents

TABLE IX

Relationship of Leading and Following Activity of Each Child to the Leading and Following Activity of the Group

| Child | Number of minutes each child was observed | Total number of leading and following incidents involving each child: Child leading — Number of times child led | Child leading — Ratio of incidents per minute | Child following — Number of times child followed | Child following — Ratio of incidents per minute |
|---|---|---|---|---|---|
| Alan | 26 | 1 | .03 | 4 | .15 |
| Anne | 34 | 15 | .44 | 19 | .55 |
| Betty | 210 | 17 | .08 | 17 | .08 |
| Brian | 76 | 38 | .50 | 32 | .41 |
| Danny | 36 | 12 | .33 | 15 | .41 |
| JoAnne | 56 | 5 | .08 | 8 | .14 |
| Linda | 90 | 0 | .00 | 7 | .07 |
| Linden | 172 | 8 | .04 | 19 | .11 |
| Margie | 32 | 5 | .15 | 1 | .03 |
| Marjorie | 150 | 75 | .50 | 53 | .35 |
| Nikko | 132 | 46 | .34 | 50 | .38 |
| Ricky | 124 | 36 | .20 | 55 | .44 |
| Sandy (1st nap room) | 108 | 57 | .52 | 43 | .39 |
| Sandy (2nd nap room) | 164 | 59 | .31 | 57 | .34 |
| Sandy (combined) | 272 | 116 | .42 | 100 | .36 |
| Scott | 182 | 115 | .62 | 65 | .35 |
| Steven M. | 148 | 22 | .14 | 24 | .16 |
| Steve S. | 60 | 15 | .25 | 20 | .33 |

TABLE IX (Cont.)

| Child | Total number of group leading and following incidents when each child was present but not necessarily involved | | | |
|---|---|---|---|---|
| | Children following | | Children leading | |
| | No. times children followed | Ratio of incidents per minute | No. times children led | Ratio of incidents per minute |
| Alan | 24 | .92 | 31 | 1.19 |
| Anne | 52 | 1.52 | 64 | 1.88 |
| Betty | 238 | 1.13 | 270 | 1.28 |
| Brian | 124 | 1.63 | 137 | 1.80 |
| Danny | 42 | 1.16 | 52 | 1.33 |
| JoAnne | 75 | 1.33 | 94 | 1.64 |
| Linda | 130 | 1.33 | 150 | 1.66 |
| Linden | 194 | 1.18 | 230 | 1.33 |
| Margie | 30 | .93 | 40 | 1.25 |
| Marjorie | 233 | 1.55 | 260 | 1.73 |
| Nikko | 164 | 1.24 | 299 | 2.26 |
| Ricky | 183 | 1.41 | 202 | 1.62 |
| Sandy (1st nap room) | 171 | 1.58 | 191 | 1.76 |
| Sandy (2nd nap room) | 203 | 1.23 | 235 | 1.43 |
| Sandy (combined) | 384 | 1.41 | 426 | 1.56 |
| Scott | 225 | 1.23 | 254 | 1.39 |
| Steven M. | 181 | 1.22 | 206 | 1.39 |
| Steve S. | 102 | 1.70 | 110 | 1.99 |

TABLE IX (Cont.)

| Child | Percentage of group related incidents<br>Ratio of incidents involving child divided by ratio of incidents not necessarily involving child<br>Per cent of incidents of child leading group | Per cent of incidents of child following group |
|---|---|---|
| Alan | .03 | .12 |
| Anne | .28 | .29 |
| Betty | .07 | .06 |
| Brian | .30 | .23 |
| Danny | .28 | .30 |
| JoAnne | .06 | .08 |
| Linda | .00 | .04 |
| Linden | .03 | .08 |
| Margie | .16 | .02 |
| Marjorie | .32 | .20 |
| Nikko | .27 | .16 |
| Ricky | .14 | .27 |
| Sandy (1st nap room) | .32 | .22 |
| Sandy (2nd nap room) | .25 | .23 |
| Sandy (combined) | .29 | .23 |
| Scott | .50 | .25 |
| Steven M. | .10 | .10 |
| Steve S. | .14 | .17 |
| Mean | .19 | .16 |
| Standard deviation | .11 | .08 |

involving Alan was divided by the ratio of incidents not necessarily involving Alan, and a percentage was obtained.

It was found that twelve per cent of the time children were leading, Alan was being led, and three per cent of the time children were following, Alan was being followed. In other words, Alan led the group in three per cent of its activities while he was present and followed it in twelve per cent of its activities. The percentage of time a child followed the group ranged from two per cent in Margie's case to thirty per cent in Danny's. Linda led the group zero per cent; Scott was the outstanding leader at fifty per cent.

The mean of the child-following-group percentages was sixteen per cent (.16), with a standard deviation of eight per cent (.08). The percentages of the children ranged between two standard deviations above and below the mean, with one score on the mean, nine above, and seven below. The mean of the child-leading-group percentages was nineteen per cent (.19), with a standard deviation of eleven per cent (.11). The percentages of the children ranged from two standard deviations below the mean to three above, with nine children below the mean and eight above. Greater variation was shown in

the leading of the group by individual children than in following.

When the leading and following percentages of the children are again placed in rank order (see Table X), it is evident that the more active and less active groups remain the same in composition, the only change in the groups being in rank. As was seen in the ranking of individual leading and following ratios, there is variation within the groups, but not between them.

The leading and following incidents were again combined, and a percentage obtained of the total activity of each child related to the total activity of the group while that child was present (see Table XI). This table shows us that Brian was observed a total of seventy-six minutes. During this time, he was involved in a total of seventy leading and following incidents, or a ratio of .92 incidents per minute. While Brian was present in the room but not necessarily involved, other children engaged in a total of 261 leading and following incidents, a ratio of 3.43 incidents per minute. When the total number of incidents involving Brian was divided by the total number of incidents while he was present but not necessarily involved, a percentage of twenty-six was

TABLE X

Rank Order of Group Related Leading and Following Percentages

| | Child following group | Child leading group |
|---|---|---|
| More active children | Danny | Scott |
| | Anne | Marjorie, Sandy (1st nap room) |
| | Ricky | Brian |
| | Scott | Anne, Danny |
| | Brian, Sandy (1st nap room) | Nikko |
| | Sandy (2nd nap room | Sandy (2nd nap room) |
| | Marjorie | Ricky |
| | Steve S. | Steve S. |
| | Nikko | |
| Less active children | Alan | Margie |
| | Steven M. | Steven M. |
| | JoAnne | Betty |
| | Linden | JoAnne |
| | Betty | Alan, Linden |
| | Linda | Linda |
| | Margie | |

obtained. This means that Brian was involved in twenty-six per cent of the activities of the group when he was present in the nap room.

The mean of the total individual activity related to the group was seventeen per cent (.17), with a standard deviation of ten per cent (.10). The group ranged from two standard deviations below the mean to three standard deviations above the mean. Eight children were below

TABLE XI

Relationship of Total Activity of Each Child to the Total Activity of the Group

| Child | No. of minutes each child was observed | A. Total no. of incidents involving each child: No. incidents | A. Total no. of incidents involving each child: Ratio of incidents per minute | B. Total no. of group incidents when each child was present but not necessarily involved: No. incidents | B. Total no. of group incidents when each child was present but not necessarily involved: Ratio of incidents per minute | Per cent group related incidents (A/B) |
|---|---|---|---|---|---|---|
| Alan | 26 | 5 | .19 | 55 | 2.11 | .09 |
| Anne | 34 | 34 | 1.00 | 112 | 3.29 | .30 |
| Betty | 210 | 34 | .16 | 508 | 2.41 | .06 |
| Brian | 76 | 70 | .92 | 261 | 3.43 | .26 |
| Danny | 36 | 27 | .75 | 94 | 2.61 | .29 |
| JoAnne | 56 | 13 | .23 | 169 | 3.01 | .07 |
| Linda | 90 | 7 | .07 | 280 | 3.11 | .02 |
| Linden | 172 | 27 | .15 | 424 | 2.47 | .06 |
| Margie | 32 | 6 | .18 | 70 | 2.18 | .08 |
| Marjorie | 150 | 128 | .85 | 493 | 3.28 | .25 |
| Nikko | 132 | 96 | .73 | 463 | 3.50 | .20 |
| Ricky | 124 | 91 | .73 | 385 | 3.10 | .23 |
| Sandy (combined) | 272 | 216 | .79 | 800 | 2.94 | .26 |
| Scott | 182 | 180 | .98 | 479 | 2.63 | .37 |
| Steven M. | 148 | 46 | .31 | 387 | 2.61 | .11 |
| Steve S. | 60 | 35 | .58 | 212 | 3.53 | .16 |
| | | | | Mean | | .17 |
| | | | | Standard deviation | | .10 |

the mean and eight above. The distribution is a more evenly spaced one than the distribution obtained for total individual activity considered apart from the activity of the group while the child was present.

The percentages of group related total activity for each child were placed in rank order (see Table XII). In examining the rankings, it is evident that the more active and less active groups change in order of the individual scores rather than in composition. The greatest difference between ranks of a child is four places in the more active group and two places in the less active group.

Marjorie shifts from fourth in Total Activity Ratios to sixth in Total Group Related Activity Percentages. Marjorie's activity is high, but not so closely related to that of the group. JoAnne follows Marjorie's pattern. Danny's position changes from sixth in Total Activity Ratios to third in Total Group Related Activity Percentages. While Danny may not rank among the highest in amount of activity, the activity in which he does engage has a high relationship to that of the rest of the group.

A positive correlation of .71, which was significant at the .5 per cent level, was found to exist between the individual total activity ratios (incidents-per-minute),

TABLE XII

Rank Orders of Total Activity Ratios and Total Group Related Activity Percentages

| | Total activity | Total group related activity percentages |
|---|---|---|
| More active children | Anne | Scott |
| | Scott | Anne |
| | Brian | Danny |
| | Marjorie | Brian, Sandy |
| | *Sandy | Marjorie |
| | Danny | Ricky |
| | Nikko, Ricky | Nikko |
| | Steve S. | Steve S. |
| Less active children | Steven M. | Steven M. |
| | JoAnne | Alan |
| | Alan | Margie |
| | Margie | JoAnne |
| | Betty | Betty, Linden |
| | Linden | Linda |
| | Linda | |

*Sandy's total incidents for both nap rooms.

and the percentage of total group related activity (see Table XIII).

When the leading and following activity ratios for each child were plotted on scatter diagrams against the group related leading and following percentages, two interesting patterns were formed (see Figure I). While the leading-incidents-per-minute ratios of the children were spread along a continuum, the percentage of group-related scores were split into two clusters of scores.

TABLE XIII

Correlation Between Individual Total Activity Incidents-Per-Minute Ratios and Percentages of Group Related Activity

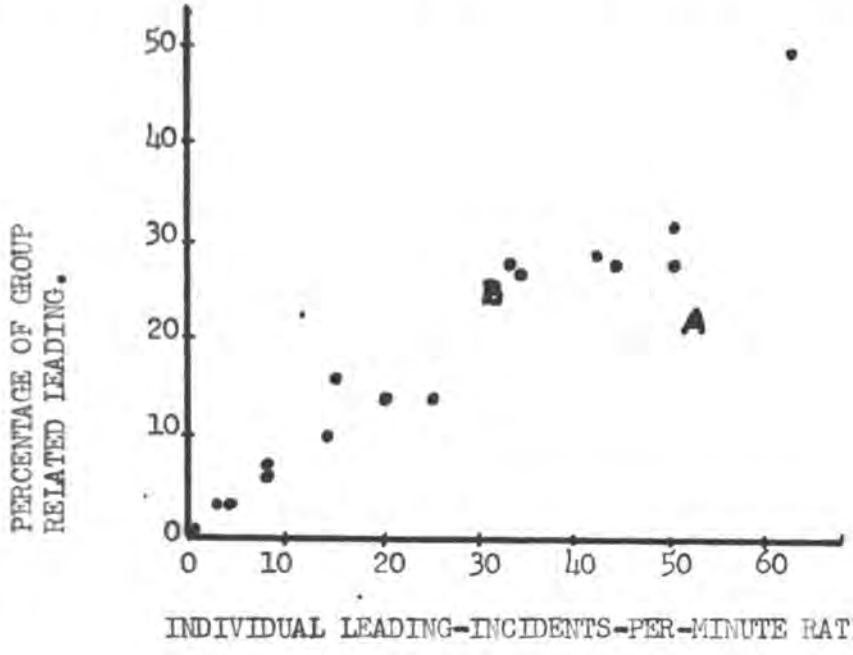
| Child | Total activity incidents-per-minute ratios | Percentages of group related activity |
|---|---|---|
| Alan | .19 | .09 |
| Anne | 1.00 | .30 |
| Betty | .16 | .06 |
| Brian | .94 | .26 |
| Danny | .75 | .29 |
| JoAnne | .23 | .07 |
| Linda | .07 | .02 |
| Linden | .15 | .06 |
| Margie | .18 | .08 |
| Marjorie | .85 | .25 |
| Nikko | .73 | .20 |
| Ricky | .73 | .23 |
| Sandy | .79 | .26 |
| Scott | .98 | .37 |
| Steven M. | .31 | .11 |
| Steve S. | .58 | .16 |

r = .71
t = 3.78 with 14 degrees of freedom.

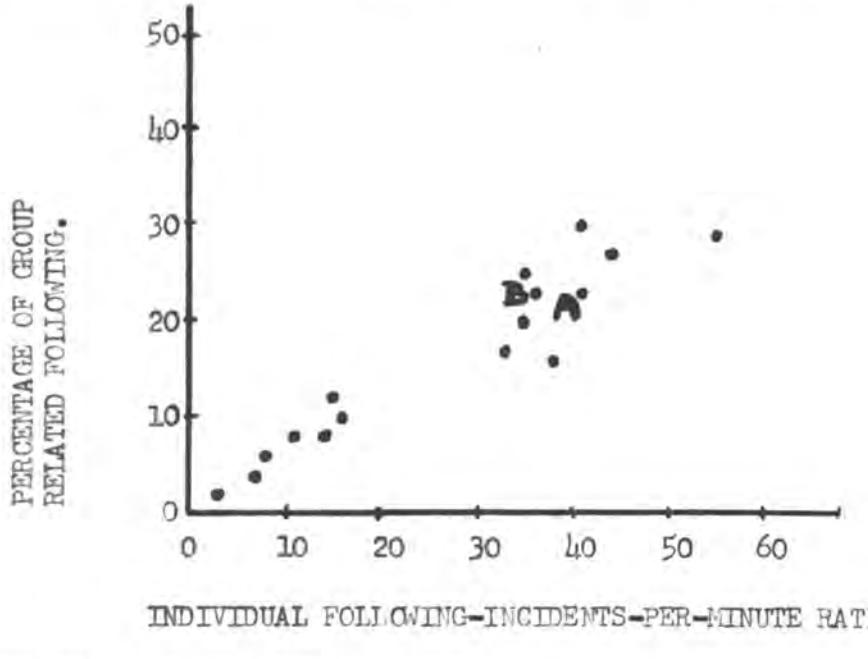
However, the percentages of group-related following scores were on a continuum, and the following-incidents-per-minute ratios varied in such a way that again two distinct groups were formed.

According to these scatter diagrams, leading seems to be more closely connected with group activity than does following. The children are more affected by the group in terms of their leading behavior. Sandy can be

SCATTER DIAGRAM SHOWING RELATIONSHIP BETWEEN INDIVIDUAL LEADING-INCIDENTS-PER-MINUTE RATIOS AND PERCENTAGES OF GROUP RELATED LEADING.




SCATTER DIAGRAM SHOWING RELATIONSHIP BETWEEN INDIVIDUAL FOLLOWING-INCIDENTS-PER-MINUTE RATIOS AND PERCENTAGES OF GROUP RELATED FOLLOWING.




A - SANDY IN FIRST NAP ROOM OBSERVED.
B - SANDY IN SECOND NAP ROOM OBSERVED.

**Figure I**

used as an example since she was observed in both groups. Placement of the scores she obtained in the two nap rooms can be examined on the scatter diagrams. There was no appreciable change in placement of her following scores when she was in different groups, but an obvious change occurred in the placement of her leading score. Her following behavior did not change as much as did her leading behavior when she moved from one group to the other.

Following may be due to an inner need while leading may be more of a function of the group. If a child needs to follow, he will, but the group determines leadership.

D. Parent Questionnaires

In order to obtain a greater understanding of the behavior of each child in the nursery school nap room, it was necessary to obtain a picture of his home environment. The factors influencing what the child does in school are not limited to those things found inside the school, itself. The amount of "testing" activity in which a child engages during rest does not necessarily depend on the stimulating presence of other children or adults. Frequently, the best way to learn about some of these factors is to ask, directly or indirectly, in

conferences, home visits, and sometimes in questionnaires. Because of limited time and a need for uniform data, this last method was used in the present study.

Two questionnaires were sent home to the parents of the children in the study (see Appendix). The first was designed to obtain factual information on the child's rest at home; physical conditions, regularity of hours, what was expected of the child, how these standards might be enforced, whether or not the child slept alone, and also whether or not the child objected to going to bed. This questionnaire was useful in presenting a general idea of what went on at home on a surface level, but did not give much information on how the parent and the child felt about rest and discipline in general.

Two copies of the second questionnaire were sent to each child's home, to be filled out individually by each parent. It consisted of situation tests, in which an ordinary type of situation involving discipline was described. The parent was asked to choose one of three possible ways of handling the situation, or to write his own solution to the problem.

Eleven of these situations were concerned with nap or sleep. One of these was discarded later because it was felt that the situation presented involved other factors besides discipline. These situations were judged by

three staff members on strictness of standards involved in the responses, and a five point scale was worked out with strict standards receiving five points, moderate standards, three, and absence of standards, one. The parent questionnaires were scored according to this scale, and a strictness score assigned to each.

Various types of weighting techniques were tried out. Reference to Likert (13, pp.1-55) encouraged the use of this simple five, three, one weighting. In a study of attitudes, Likert used a complicated weighting technique originally but found that it was no better than a simple one-to-five scoring.

It might be mentioned here that the fallacy is recognized of assigning ordinal numbers to data which is actually unquantitative. A response of strictness judged as three is not three times more strict than a response judged as one. However, to allow a simple type of comparison, the psychological distance between each rating was assumed to be equal and the possible invalidity of the statistics obtained kept in mind.

The last five situations were concerned with the area of acceptance of feelings. Each of these situations involved a different feeling, such as jealousy or anger. The responses were again judged by the three staff members and scored as being accepting or non-accepting, the

parents' scores consisting of the number of accepting responses chosen.

Fourteen mothers and twelve fathers completed the questionnaire. The parents of three of the children, Anne, Danny, and JoAnne did not fill out a questionnaire because the children were no longer enrolled in school. Mike and Becky, whose parents completed questionnaires, were not observed during rest because they were moved from the second nap room to the first at the beginning of the second series of observations. The data on these three children and four parents were included in the study in order to gain the advantage of increased reliability of data due to larger groups in certain parts of the analysis of results.

The data on the situation test questionnaire is summarized in Table XIV. In the area of strictness of standards, the mean of the scores of the mothers was lower than the mean of the scores of the fathers (32 to 34.7), indicating that on this test the mothers were somewhat less strict than the fathers as a group. However, the mothers of Scott, Linden, Steven M. and Steve S. were more strict than their fathers. The standard deviation of the scores of the mothers, six, was again lower than that of the fathers, 9.8, indicating more variation among the fathers' scores on strictness of standards.

TABLE XIV

Summary of Data on Situation Test Questionnaire

| Child | Acceptance of child's feelings | | | Strictness of standards | | |
|---|---|---|---|---|---|---|
| | Mother | Father | Difference | Mother | Father | Difference |
| Alan and Margie | 3 | | | 27 | | |
| Becky | 5 | 2 | *3 | 40 | 34 | *6 |
| Betty | 2 | 1 | *1 | 32 | 40 | 8 |
| Brian | 4 | 2 | *2 | 34 | 34 | 0 |
| Linda | 2 | 2 | 0 | 34 | 34 | 0 |
| Linden | 2 | 1 | *1 | 34 | 26 | *12 |
| Marjorie | 4 | 2 | *2 | 32 | 50 | *28 |
| Mike | 4 | 2 | *2 | 13 | 28 | 15 |
| Nikko | 3 | 4 | 1 | 26 | 40 | 14 |
| Ricky | 5 | 4 | *1 | 26 | 32 | 6 |
| Sandy | 2 | | | 36 | | |
| Scott | 4 | 1 | *3 | 34 | 31 | *3 |
| Steven M. | 3 | 2 | *1 | 40 | 38 | *2 |
| Steve S. | 3 | 5 | *2 | 36 | 30 | *6 |
| Sum of scores | 46 | 30 | 19 | 444 | 417 | 100 |
| Mean score | 3.2 | 2.5 | 1.5 | 32 | 34.7 | 8.33 |
| Standard deviation | .9 | .9 | .9 | 6 | 9.8 | 1.2 |

*Mother's score higher than father's.

In the area of acceptance of feelings, the mean of the scores of the mothers, 3.2, was higher than the mean of the scores of the fathers, 2.5, indicating that, according to the results of this test, the mothers were more accepting of their children's feelings. The mothers of Nikko and Steve S. were less accepting. The standard deviation from the mean of both groups was the same, .9.

When the questions on acceptance of feelings were analyzed according to the accepting and non-accepting responses of fathers and mothers, certain results seemed notable. While both the mothers and fathers were fifty per cent accepting of the child's need to assume responsibility in toilet training, eighty-five per cent of the mothers and seventy-five per cent of the fathers could accept accidents once training had been established when the regression was due to a new event in the child's life (in this case, entrance into nursery school). Seventy-eight per cent of the mothers could accept the release of feelings obtained through smashing of clay objects; fifty per cent of the fathers could accept this. Forty-two per cent of the mothers and forty-one per cent of the fathers accepted jealousy of a new baby. Anger against the mother revealed the greatest difference in the attitudes of the mothers and fathers. Fifty-seven per cent of the mothers chose an accepting response, but only eight per

cent of the fathers, represented by the father of Steve S., could accept anger in their child in this situation.

Correlations were obtained between various scores on the questionnaire. The correlation between parental acceptance of feelings and strictness of standards was a minus .27 (see Table XX, Appendix). Feelings about discipline and ideas about discipline do not have a significant relationship according to this test.

No correlation appeared between the difference between acceptance of feelings scores of each child's mother and father, and the difference between strictness of standards scores of each child's mother and father. This correlation was plus .08 (see Table XXI, Appendix). Disagreement in one area does not necessarily imply agreement or disagreement in the other.

No trend appeared in the correlation between the amount of activity of each child and strictness of standards scores of his parents, the correlation ratio being plus .11 (see Table XXII, Appendix). Nor was there a stronger correlation between the amount of activity of each child and the difference between the strictness of standards scores of his mother and father, plus .19 (see Table XXIII, Appendix). The mothers' standards correlated with amount of activity at a minus .02 (see Table XXIV, Appendix); the fathers' standards at a plus .44

(see Table XXV, Appendix). The relationship between the strictness of standards at home and the amount of testing of adult limits the child is able or needs to do in nursery school show little relationship on this test.

Relationship between the amount of activity of each child and acceptance of feelings on the part of the mother shows a correlation of .74 (see Table XV), with a significance level of .5 per cent. This would indicate that the more accepting the mother is, the more active the child tends to be and the more leading and following he is able to do. No trend appears as far as the fathers are concerned, the correlation being plus .26 (see Table XXVI, Appendix), nor is there a high correlation when the scores of the fathers and mothers are combined, the correlation being plus .42 (see Table XXVII, Appendix).

The correlation between the amount of activity and the amount of difference between acceptance of feelings scores of each child's parents was .74, which was significant at the 2.75 per cent level, the amount of activity increasing as the difference between the scores increases (see Table XVI). Disagreement in this area does seem to have an effect on the amount of leading and following the child does in nursery school.

TABLE XV

Correlation Between Acceptance of Feelings Score of Mother and Total Activity Ratio of Child

| Child | Total activity ratio | Acceptance of feelings score |
|---|---|---|
| Alan | .19 | 3 |
| Betty | .16 | 2 |
| Brian | .94 | 4 |
| Linda | .07 | 2 |
| Linden | .15 | 2 |
| Margie | .18 | 3 |
| Marjorie | .85 | 4 |
| Nikko | .73 | 3 |
| Ricky | .73 | 5 |
| Sandy | .79 | 2 |
| Scott | .98 | 4 |
| Steven M | .31 | 3 |
| Steve S. | .58 | 3 |

r = .74
t = 3.57 with 11 degrees of freedom.

TABLE XVI

Correlation Between the Total Activity Ratio of the Child and the Amount of Difference Between the Acceptance of Feelings Scores of the Child's Mother and Father

| Child | Total activity ratio | Difference between acceptance scores |
|---|---|---|
| Betty | .16 | 1 |
| Brian | .94 | 2 |
| Linda | .07 | 0 |
| Linden | .15 | 1 |
| Marjorie | .85 | 2 |
| Nikko | .73 | 1 |
| Ricky | .73 | 1 |
| Scott | .98 | 3 |
| Steven M. | .31 | 1 |
| Steve S. | .58 | 2 |

r = .74
t = 3.13 with 8 degrees of freedom.

Low correlations of minus .11 and .09 were obtained between playing the adult role, and strictness of standards and acceptance of feelings, respectively, (see Tables XXVIII, XXIX, Appendix). The child's need, or perhaps his ability, to verbalize adult standards does not seem to be related to his parents' feelings or ideas about discipline.

The strictness of standards scores of the parents of the more active and the less active children were compared in terms of their means and standard deviations (see Table XVII). It was found that the mean scores of

TABLE XVII

Comparison of Scores of Active and Inactive Children on the Situation Test Questionnaire

| | Total group | More active children | Less active children |
|---|---|---|---|
| ACCEPTANCE OF FEELINGS | | | |
| Mean of scores of mothers | 3.2 | 3.57 | 2.5 |
| Mean of scores of fathers | 2.5 | 3.00 | 1.5 |
| Mean of scores of mothers and fathers combined | 2.9 | 3.3 | 2.1 |
| Mean of difference between scores of each child's mother and father | 1.5 | 1.8 | .75 |
| Standard deviation from the mean | 1.05 | 1.28 | .74 |
| STRICTNESS OF STANDARDS | | | |
| Mean of scores of mothers | 32 | 32 | 32 |
| Mean of scores of fathers | 34.7 | 36 | 34.5 |
| Mean of scores of mothers and fathers combined | 33.1 | 33.9 | 33.2 |
| Mean of difference between scores of each child's mother and father | 8.33 | 9.5 | 5 |
| Standard deviation from the mean | 4 | 6 | 2 |

the mothers of the two groups of children were identical, thirty-two. The mean score of the fathers of the more active children was thirty-six and the mean score of the fathers of the less active children was 34.5, a difference of 1.5 where the standard deviation of the group is four points.

The mean of the differences between the scores of the mothers and fathers of the more active children is 9.5, and the mean of the differences between the scores of the parents of the less active children was five. The standard deviation from the mean of the scores of the parents of the more active children was six; the standard deviation from the mean of the scores of the parents of the less active children was two. While the correlation between the amount of difference between the scores of the parents and the activity was low, considered as a group, the more active children tended to have parents who agreed less in these scores.

Acceptance of feelings scores were similarly compared. The mean of the scores of the mothers of the more active children was 3.75, that of the mothers of the less active children, 2.5. The mean of the scores of the fathers of the more active children was 3.00, that of the fathers of the less active children, 1.5. Again, this difference between activity and acceptance score of father did not appear as a correlation, but did appear when

the parents of the more active and less active children were compared in the two groups. The mean of the differences between the scores of the parents of the more active children was 1.8, and that of the parents of the less active children, .75. The standard deviation from the mean of the scores of the parents of the more active children was 1.28, that of the parents of the less active children, .75.

Acceptance of feelings again seems to show a higher relationship to the activity of children than does strictness of standards. The standard deviation from the mean of the less active group is lower than that of the more active in both areas, showing more variation in the scores of parents of more active children. The average difference between scores of mothers and fathers is higher for the more active children in both areas, showing, again, more variation. The parents of children who test out standards most often in the nursery school nap room do not agree as closely on standards and especially on acceptance of feelings as do the parents of less active children.

The meaning of these two areas of discipline might be considered. The situations described as strictness of standards tests are situations which can be easily judged from an intellectual viewpoint. The choices offered are

not particularly threatening to the parent, and the "right" answer can be deduced. It may be that the picture offered by the scores is not as true a picture of what happens at home. Furthermore, the actions taken in any situation may not be as important as the emotional tone of that situation. A child can be told to go back to bed in the same words but in many different tones of voice and with many different feelings. The acceptance of feelings tests are more subtle, and come a little closer to measuring the emotional climate of the home. While they are fewer in number, they have been more valuable in understanding the child's behavior in the rest routine in nursery school.

E. Individual Variations

While trends and correlations are useful for predicting and analyzing the behavior of a group, the individual child will present a picture all his own which will differ in significant respects from the data on the other children. Children in general have shown certain common traits. Children considered individually may share only their individuality. In order to understand better the meaning of the differences which appeared in the behavior of the sixteen children in the study, two of the more active children, two of the less active children, and the

most "average" child were selected for individual study.

Scott was four years, one month old and had been in nursery school a month and a half at the beginning of the study. A member of the more active group, he is next to the highest in total activity, highest by far in leading, but seventh in following. His total activity ratio is almost three standard deviations above the mean of his group. While his following activity is within one standard deviation of the mean, his leading activity is again two standard deviations above. These figures show a very active child, whose activity in the nap room consists more of leading than following, leading composing sixty-three per cent of his total activity ratio.

When his activity was related to the activity of the group, it was found that Scott followed the group in twenty-five per cent of its activities and led the group in fifty per cent of its activities while he was present. While he ranked fourth in following, his rank in leading was outstandingly first, and first in total activity related to the group, being three standard deviations above the mean of the rest of the children. His leading ratio showed a slight tendency to increase with increased size of group, but no trend was shown in following.

Records taken of a child's daily behavior are a valuable supplement to formally gathered data. Notes on

Scott strengthen the impression of a busy, sociable child.

9/30/53. First day at school: The teacher invited Scott outside. On his way out, he stopped by Huddy and asked, "Want to go out with me?" Huddy did.

2/2/54. Scott is an engineer on the train. "You guys stay there a minute." (Linda, Becky on train.) Leaves to welcome Ricky, shows him the engine. Becky leaving train, "Can you wait? Got to get a bottle for my baby." Scott goes to help Becky find a bottle for the baby, returns to drive train: "Here we go, now!" Ricky comes over. Scott shows him to last seat. Becky gets there first. Ricky to Scott: "Where shall I get in?"

The definite sense of leadership Scott exhibited carried through into a feeling of responsibility for the other children, and a strong code of ethics which he did not hesitate to enforce.

10/22/53. Ricky had persuaded Steve to give him a turn on the spring horse. When he reached the end of the hall, Steve went up to him, asked, "Ricky, can I have a turn?" Ricky didn't get off. Scott was watching this, and came up belligerently, "He had it first." Ricky told the two boys that he would be through pretty soon, and they went back to the playroom peacefully.

10/15/53. Scott had been playing with Steve S., rolling a ball back and forth, and sometimes tussling with him when both of them ran for it.

> After this had been going on for some time, Scott became too rough, pushed Steve down, and laid on him. Scott is heavy, and Steve retreated to a teacher for comfort. A little later, he found the ball again and began to roll it to the teacher. Scott came up immediately, to join in. Steve said, "No," and backed away. Scott said in surprise, "He doesn't want me to play with him." The teacher said, "Well, you were pretty rough the last time you played ball with him." Scott: "Yeah, in a contemplative tone. The teacher suggested, "Perhaps you could play with him this time and not knock him down," and Scott agreed, "Yeah, let's just play with the ball, Steve." Steve relaxed at once, and the two boys managed to have an enjoyable time throwing and rolling the ball back and forth without further difficulty.

On the acceptance of feelings questions, Scott's mother was above average and his father was below. His mother was slightly above average in strictness, his father average. His parents showed the greatest difference of all the parents in scores in acceptance of feelings, but agreed much more than average on strictness of standards, his mother being slightly more strict than his father. Compared with the parents of the more active children, Scott's mother is more accepting and his father much less accepting. They disagreed more than average in their accepting scores. His mother is slightly more

strict and his father slightly less strict. Their agreement here is again much higher than average.

Scott's feelings about his parents might be evident in the following note:

> 10/14/53. Scott was still at his table eating when Sandy's mother came for her. Sandy's mother was in a hurry, but Sandy wanted to show her the rats, and she did come into the room to look at them. Then Sandy wanted to show her something outside, but the mother told her that she really did have to hurry and there wasn't time to look. Scott watched all this, then said, "When my momma comes, she won't be in a hurry and she will have time to look." When his mother came, this proved to be true.

The feeling toward Scott at home can be seen in the following letter, sent back with the questionnaires:

> "Scott is passing through the stage where an afternoon nap is too much rest and the absence of one makes him overtired at bed time. Consequently we are just feeling our way along. He is ready for a nap about 4:30 p.m. and if put to bed at this time he would sleep for two hours which would set his bed time up to 10:00 p.m. Obviously, this would be unsatisfactory
>
> "With regard to question #6, both his father and I wish that Scott could have his Daddy put him to bed. But since we have been in Corvallis, I have generally taken care of it since his father works in the evenings.
>
> "What would you do?
>
> "Your hypothetical situations were interesting but most difficult to answer. Both my husband and myself have taken some courses and done considerable reading on small children and have a general idea of the approved methods of handling such situations.

"However, there are many contributing factors that would influence my actions. I realize that you have meant our answers to apply directly to these situations as presented. But casting all theories aside, I have my own answers to these problems. In retrospect, I can often see where I have done the wrong thing or where I could have acted in a more tactful manner.

"It seems that by the time a little boy reaches the age of four, he is wise to all the tactics a mother can think of. He responds readily (or at least eventually) to suggestions at Nursery School or from a friend or neighbor but has an answer for every tactic his parents try. A suggestion such as "Scott, you had better get to bed now so you'll feel rested for school tomorrow" is met by "I don't want to go to Nursery School tomorrow." By tomorrow he does want to go and can't remember what the fuss was about the night before.

"As far as problems of being wet or dry, I can only say that at two and a half Scott didn't care one way or another. If he was interested in play then he didn't come in and no argument or suggestion would bring him in. When I thought I couldn't stand it any longer he suddenly stayed dry and came in without urging. I don't think I could have hurried or delayed this.

"I write this to say that you can't have it in black or white. A married student's family life is not ideal because the schedule is tight when the father works part time. As a result, the children are often hurried or told to do something because there is no time for diplomacy. We regret this and have tried to compensate in other ways. With another child to consider, I can't be too relaxed or diplomatic in getting Scott into dinner if while I am outside urging him to come in, the baby is walking across the table which has just been set for dinner.

"Scott's home life is not complete chaos but neither are all situations handled as we would like them to be. We try to be patient and tactful but like all parents sometimes act on impulse and regret it later."

To summarize Scott's background, records show that he does a great deal of testing of adult-imposed standards in the nursery school nap room. The greater part of this testing is led by Scott, himself, although he does follow other children more than does the average child. His mother is very accepting and of average strictness. His father is less accepting and less strict. However, the home atmosphere does not seem likely to produce great conflict, and Scott's activity is probably related to a general high sociability and outgoingness rather than as a release for aggression and hostility. Scott seems to feel free to be himself.

Marjorie is also a more active child, ranking third in leading, seventh with Scott in following, and fourth in total activity. The group leads her in twenty per cent and follows her in thirty-two per cent of its activity while she is present. She ranks second to Scott in leadership, eighth in following. In total activity related to the group, her rank is sixth. The shift in rank in total activity may be interpreted as showing that her activity is high but not so closely related to that of the group, and what activity is related to the group is more likely to be self-initiated than imitated. The size of the group has no apparent influence on her activity. Evidently, the contacts with children offered by a

group are not important as such to Marjorie.

Examination of the notes on Marjorie confirm this impression. Her activity throughout the day is adult-centered. The following records are typical for Marjorie:

> 1/8/54. Marjorie is in the yard near a teacher. Picks up duck feather, "Look, this is off the duck." Runs toward the teacher, "You push me, push me, pick me up." "You wipe this off (swing)." Together they get a cloth. Marjorie carefully wipes seat of swing. "Look at the ducks." The teacher finds another feather. Marjorie offers her hers, "Why don't you take this instead? I'm going to swing. You push me."
>
> 1/27/54. Marjorie is in sand pile. Picks up muffin tin, asks teacher, "Will it break?" Bangs table with tin, "It didn't break." Begins filling tins on floor with small shove. Piles tins high in mounds, "Look what I done," fills three pans, "Look what I done (to teacher)." Betty joins her, takes shovel. No response. In solitary play, Marjorie puts filled pans in bucket, "Look what I done (to teacher)." The teacher moves to blocks and Marjorie follows, having lost interest in sand when adult moved.

Marjorie's mother is slightly more accepting, her father less accepting than the average parents of a more active child. Their disagreement in scores is slightly more than average. Her mother's score for strictness of standards is average. Her father's score, however, is

the highest of all the fathers' scores, and the disagreement way above average in this area. The general family pattern is that of the more active child's parents, with the mother more accepting and the father less accepting and more strict than the average parents of a less active child. High standards set for Marjorie by her father were evident in nursery school in the form of anxiety about her behavior in a situation away from home, as can be seen in the following record:

> 9/28/53. This was Marjorie's first day to stay for lunch, and her father's first visit here. When he came after her, he asked the teacher, "How's she doing? Did she do all right at lunch?" Then, to Marjorie, "Come on, let's go. Daddy's hungry." When she didn't stop swinging, "Let's don't keep swinging. Daddy will leave you here all day. You'll be all alone because no one will be here." This was in a matter-of-fact tone, not harsh at all.
>
> 10/8/53. (Marjorie found it very difficult at first to eat at nursery school.) When her father came he came in (to the lunch room) and asked her, "What's the matter? Why aren't you eating?" He tried to get her to eat and succeeded in getting her to drink her milk, but she would try nothing else. The teacher suggested that she be fed when she got home until she was ready to eat with the other children.

It is possible that the nap room in nursery school represented an opportunity to try out adult standards and

limits with the support of membership in a group when Marjorie might not have been able to defy adults in the strict atmosphere of her home. "Groupness" in this case would be important to the child in terms of the strength it would offer her in being able to assert herself, rather than in terms of a sociable situation as in Scott's case. The adults in the nap room were probably a stimulus for testing instead of the presence of the other children. In one case, outgoingness in the rest situation was a continuation of the general picture of the child. In the other case, it was in contrast to a usually passive activity level, this contrast possibly indicative of conflict in the child. Somewhat similar data actually represented quite different factors in the personality and background of Scott and Marjorie.

Steve S. seems to represent the "average" child in this study, in the sense that his activity ratios centered around the mean of the total group. In another sense, of course, he might be considered exceptional since the rest of the children were either quite active or quite passive and the mean perhaps represented an average of two populations. The mean of the total activity ratios was .55 incidents per minute. Steve S. had a total activity ratio of .58, less than one-half standard deviation above or below the mean. His leading ratio was

slightly below average, his following slightly above. Where the mean of the total activity ratios related to the group was .17, Steve's ratio was .16. Both leading and following were slightly below the mean, following being the lowest but still within one-half standard deviation of the mean. His rank orders do not change appreciably in leading or following, and not at all in the contrast between individual and group-related activity. His pattern throughout is consistently "average."

The following notes reveal a little more about Steve:

9/28/53. (On one of first days at school.) Arrived with mother. Shy, refused to open mouth, show hands. Went into mother's skirts. Steve plays with train in doll corner. Runs to mother, wants to go outside. Teacher initiates block play with Huddy. Huddy, on top shelf of yard blocks, says, "Here, Stevie," hands blocks to Steve who places them on the floor. Steve: "We are down lower, aren't we, Huddy." Huddy: "We are getting it." Steve: "Here's one." Huddy: "Here." Steve: "Quite heavy for us. We are working, aren't we, Huddy. This is the one we made the other time, isn't it." Huddy: "Now look it. What are we going to put in here?"

10/21/53. During this morning, Steve was playing with Scott and hurt him accidently. Scott cried while Steve stood by anxiously. Steve said, "I didn't mean to hurt you, Scott," very earnestly and Scott soon ceased crying and played again with him.

11/11/53. This was Armistice Day, and the town schools were not in session. Three school boys about eight years old came by the yard and opened the gate. Scott and Steve were standing on the steps to the back door. The boys invited them to come outside of the yard, but Steve and Scott both refused. One of the staff teachers came out, and the three older boys ran off.

1/29/54. Linda: "I'm going to be four tomorrow." Steve: "I'm going to be four pretty soon. Be big! I'll be big, then!"

2/10/54. A teacher sat by the doll corner, watching Linda and Nikko play. Steve S. came up, "I don't have anything to do in there yesterday," pointing to doll corner. He had been in there the day before and had stood back, watching, and hadn't participated. Teacher: "I need some things from the store. Will you be Mr. Storeman?" Steve walked into the store section, "What do you need?" Nikko told him what she needed and the teacher tore up paper money. Steve was soon collecting money and selling groceries.

2/12/54. Steve in office, runs to record player, "I can do it all myself. I'm big. This is a good record. Maybe this record would be good for me. This is the one side, number one and (turns it over), number two. We are supposed to play number two first and number one second." Plays one side. "It's over. That's the way it stops, isn't it." Puts on other side, "Hey, is that number one?"

These records are quite typical of Steve. He enjoyed playing with other children, but was hesitant and unsure about joining an activity. He was preoccupied

with being big, and conscious of what was expected of him. The impression given is of a child who is not quite sure of himself or his environment but who does have some very good feelings about people.

Steve's mother is slightly below average in acceptance of feelings. His father's score, however, was the highest made by any of the fathers, the highest possible on the test. He was the only father able to accept anger in the child. He had taken a department course for men, "Behavior of Young Children," which probably contributed to his understanding of his son. He was below average in strictness of standards while Steve's mother was above average, and more strict than his father.

10/5/53. (Steve is getting ready to make a salt and flour dough.) The teacher and Steve went out to get the things for the dough, accompanied by Marjorie. They brought the things back to the art room. Steve's mother was in the next room. He went to her, and she came back with him. The teacher got out aprons for Marjorie and Huddy who had joined them, then offered one to Steve who said, "No." His mother immediately began to tell him that all the children wore aprons when they played with dough, and that he couldn't use the dough unless he had one on. The teacher tried to assure her that it wasn't important, but she continued much in the same vein, adding that last time he had gotten flour all down his front. Steve soon lost interest in the

mixing process, sat down on the bench beside his mother and cried a little. He finally said he wanted to go outside; he didn't want to play with dough.

It is difficult to draw any conclusions about "average" children from Steve S.'s records, especially since it is uncertain what being "average" means. His parents differ from most in that the father is more accepting and less strict than the mother, this being the only case in which such a pattern occurred.

Linda was one of the less active children in the nursery school nap room. She was observed at the beginning of her nursery school enrollment, and her activity did increase slightly during the five-weeks period in which she was observed. However, absolutely no leading incidents were recorded for her during the ninety minutes in which she was observed. She ranked sixteenth, at the bottom. Her following ratio was .07, ranking fifteenth, and sixteenth in total activity. These same ranks were maintained when the activity was related to the group activity. This picture of a very passive child is in dramatic contrast to the verbal, sociable, aggressive child seen in other nursery school situations.

1/12/54. (Linda and Betty have been washing doll clothes.)
Linda: "Have to clean the table, don't we." She wiped it with a sponge.

Betty: "After these (clothes) dry, we can dress her up."

Ricky came in to help mix paint.

Linda: "What are you doing? Get away from me. (To cook in kitchen) Hi, hi, hi!" She ran out to see the cook, came back, "Let me have the sponge. I have to clean the table. I have to have some water. When are you going to let me sprinkle?" Betty didn't answer or give up the sprinkler. Linda continued wiping the table. Left to ask an observer who she was. Came back, "Can I have some water from here? See (to Nikko at door). See what we doing."

Betty: "Nikko, you can wash some clothes."

Linda: "I'll go get some clothes for her to wash. Do you want me to put them in (the water) for you?"

Betty: "I want to dress my baby."

Linda: "Are they dry? We'll just pretend. (To Nikko) Do you want me to do it for you? See some (water) came out. Nikko, see her arm. There her apron is."

Nikko: "Yes."

Linda: "We can't see her feets, can we. Look at her apron and funny hat. You should hold her like this. See how she walks. Funny lady, isn't she. She's looking at you. She looks at me. She's a funny lady."

Betty: "Baby's feet is dirty. I want to wash."

Linda: (To Nikko) "How can you do it? Like this, would you, Nikko? You see the water dripping out? See the water. It comes out. You didn't know there was some water in there, did you? Nikko needs some soap. Here's some soap. You wash 'em good."

Betty left with her doll.

Linda: "You want to do that now? Let's have a turn with that chair, shall we? In case you want to sit here you tell me so I can have the chair." She brought one of the little stools up to the table. Nikko didn't move. "Put more water in the pan. It's hard to get the top on. Is it hard for you, Nikko?" Nikko tried to get the top of the sprinkler on. "I might want

to paint pretty soon."

Nikko: "There, I got it on. I got it on this time." She left with Linda to start painting.

Linda's father and mother made identical scores on the parent questionnaire in both areas considered. They were both below the average of the parents of less active children in acceptance of feelings. Her mother was above average and her father average in strictness for parents of less active children. The staff questions the score on strictness in this case because observation of the parents indicated high standards and expectation of obedience at home. The great contrast between her behavior in the relatively unstructured and permissive part of the nursery school program, and her behavior in the comparatively controlled nap room suggests some tension in the area of self-assertion against authority. When a child is highly active in most situations and extremely passive in another where a great amount of activity is still possible, the behavior in either one or the other type of situation is unusual for the child. Linda shows a need and ability to test out adult standards at other times during the morning. It is possible that quietness during rest at home is rigidly enforced and that she is unable to derive enough support from the group to defy adults in this similar situation.

Betty is also a less active child, who ranks twelfth in leading, and fourteenth in following and total activity. These rankings are maintained when the activity is related to group activity. Records taken of Betty's behavior during the nursery school program show a fairly consistent pattern of quiet, busy, unaggressive play. Contacts with other children are welcomed but not sought out.

1/21/54. 9:20. Betty is building with blocks on a table near the block corner. She built structures around the toy people and animals. She built a house for the people, an enclosed area for the horses and an elaborate structure for the dog. She built the structure higher and higher, "Now they can't see out, can they?" (to observer) She accidently knocked part of it down, and silently started to rebuild it, but was distracted by Indian records. 9:30. She left for about two minutes and then came back to rebuilding. Placed a few blocks on the building and then left. She joined the children at the record player, stayed only a couple of minutes, and then returned to her building. This time she began building the house higher until part of it fell over. She jumped as the blocks fell, but said nothing and began rebuilding it. 9:35. Then she began taking down the structure she had built for the dog and dropped the blocks on the floor. She built a flat enclosed area for the horses and dog. "Look," Betty pointed to the house for the people, "They can't see out. They think it's raining outside." She took the people out and put them back

> in the house. 9:40. Brian came over and silently looked at Betty's house. He did not touch it, but looked inside it and then left. Betty watched him waiting to see what he would do but saying nothing to him. She then left the block table.

Betty's parents were both less accepting than average for parents of less active children. Her mother was average in strictness, her father quite a bit more strict, and above average for fathers of less active children. Notes on the questionnaire suggest high standards which have never had to be enforced. On one question where a child plays with toys during rest, Betty's mother checked a strict response, adding, "This has never happened at our house." Her father added, "We have never had trouble as Betty likes to take a nap." In Betty's case, her behavior during rest is in accord with her usual behavior. Either she is unable to assert herself against an adult, or does not feel a need to assert herself against an adult, or does not feel a need to assert herself, which may mean the same thing.

Examination of the behavior of these children in the nap room and in the rest of the nursery school program has suggested that similar behavior in rest does not indicate similar behavior at other times, nor does it necessarily mean similar standards or degree of acceptance

at home. Furthermore, children react in unlike manner to somewhat similar factors. Where group trends indicate a certain reaction to a certain situation, the individual child will meet the situation in his very own way, testing or not testing, leading and following or remaining comparatively inactive.

# CHAPTER V

## SUMMARY, CONCLUSIONS, AND SUGGESTIONS FOR FURTHER STUDY

### Summary

As a basis for understanding some of the factors involved in the child's growing sense of self and his maturing conscience, this study was designed to investigate the responses of nursery school children to adult standards in a nursery school nap room.

The age period of three and a half to four and a half years in which these children were observed has been described as an important period in the development of a feeling of independence and self-worth, and in the development of self-control as contrasted with the earlier control which was derived from outer authority. Since in developing a sense of self it is necessary to assert one's difference, which may mean asserting oneself against authority, the child may need to try out his strength against the adult strength. Being in a group with other children could give a child increased ability to do this, to begin to make his own decisions in cases in which what he wanted to do conflicted with what he thought he ought to do and what he felt was wise to do.

It was found that children in the nursery school nap room differed in their ability or need to assert themselves. This difference was not in whether the child led or followed the other children in defying an adult, but in the amount of activity of any type. The children in this study fell into two groups in amount of activity. One group found the nap routine a time in which they could or needed to assert themselves, and the other group either could not or was not stimulated to a large amount of self-assertion of either leading or following character.

Since these children fell into a dichotomy, the question was asked, "What are common factors for the more active children which the less active children do not have and might be involved in their greater freedom to act?" Various factors were investigated. No outstanding relationships existed between the amount of activity in the nap room and age of the child. The ten-month age range of the children observed was probably small enough to include the children at the time when development of autonomy was a concern for them all. Nor did length of time spent in the nursery school seem to have an effect on activity, except at the very beginning of the child's enrollment.

The size of the group did not have any significant effect on the activity of the individual child. The amount of testing of adult authority was related to the activity of the rest of the group, and this relationship appeared closer for leading than following behavior. Being in the group was the important factor, rather than size of the group in which the child happened to be.

A questionnaire gave some insight into parental attitudes making possible or necessary the child's ability or need to defy adult standards and prove his own strength in the nap room. The strictness of standards as such at home did not seem to be involved. Neither the strictness of the mother nor the strictness of the father showed any significant relationship with the activity of the child. The relationships between parental attitudes and amount of assertive activity shown by the child appeared in the area of parental acceptance of the child's feelings. The more accepting mothers tended to have more active children. The scores of the fathers of more active children were not as highly related. In both the area of strictness of standards and acceptance of feelings, the parents of a more active child tended to have a greater difference between their scores. There was greater variability of the scores of these parents as a

group than in the scores of the parents of the less active children.

The findings were applied to the cases of five children. It was found that similar behavior might be caused by quite different factors, and that similar factors might result in very different behavior.

## Conclusions

Children differ in ability to assert themselves against adult standards in amount rather than in kind of testing, suggesting that the development of sense of self and self-control involves doing a lot of *something*, rather than leading or following.

The fact that it *is* a group, rather than the size of the group, is the stimulating factor in helping a child assert himself.

Certain factors in the home seem to help or stimulate assertion. Acceptance of the child's feelings by the mother and difference between the parents' scores in acceptance of the child's feelings were characteristic of the more active child in this study.

## Suggestions for Further Study

The present research indicated certain areas which seem desirable to study further. One such area is the relationship between acceptance of the child's feelings on the part of the parent and the amount of self-assertive activity in which the child seems to need to engage. This study showed a high relationship between acceptance on the part of the mother and ability of the child to assert himself against adult limits. The relationship of father acceptance to this ability was lower, but the relationship of differences in parental acceptance to activity was high. These trends should be checked in other studies, and with other tests. Five questions were used in the present study, since the area was not one of the main concerns. The trends shown deserve further investigation of a more comprehensive nature.

Another area is the changes in the leading and following behavior of a child when he moves from one group to another. Sandy, the only child observed in two different groups, showed little change in following activity but a considerable change in leadership. Other children may show similar constancy in following and change in leading, or this pattern may be characteristic of Sandy only. However, the high relationship of leading to the

group activity, and the comparatively lower relationship of following to the group activity shown in this study seem to indicate more than chance results.

The adult method of handling testing and control situations might be analyzed according to techniques used, as with Redl and Wineman's "techniques for the antiseptic manipulation of surface behavior."(1) The effects of these techniques on the children could be noted in terms of increasing or decreasing their ability to assert themselves.

The types of testing might be studied according to the methods used by individual children. Does the child test directly or indirectly, by actually asserting himself or by passively watching other children test the limits? Does the child do most of his testing alone, or in a group situation? If passive, does the child manipulate other children to get them to try out limits for him, or is he able only to watch?

The effects of a two-child group testing of an adult might be studied as possibly similar to a competitive situation in the home. Two-child groups were observed infrequently during this study, but the behavior

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(1) Redl, Fritz and David Wineman. Controls from within. Glencoe, Ill., The Free Press, 1952. pp.153-246.

of certain children seemed to indicate that such a situation represented quite a different thing to them than when more children were present in the nap room, some children being very much more active at these times and some much less active.

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# A P P E N D I X

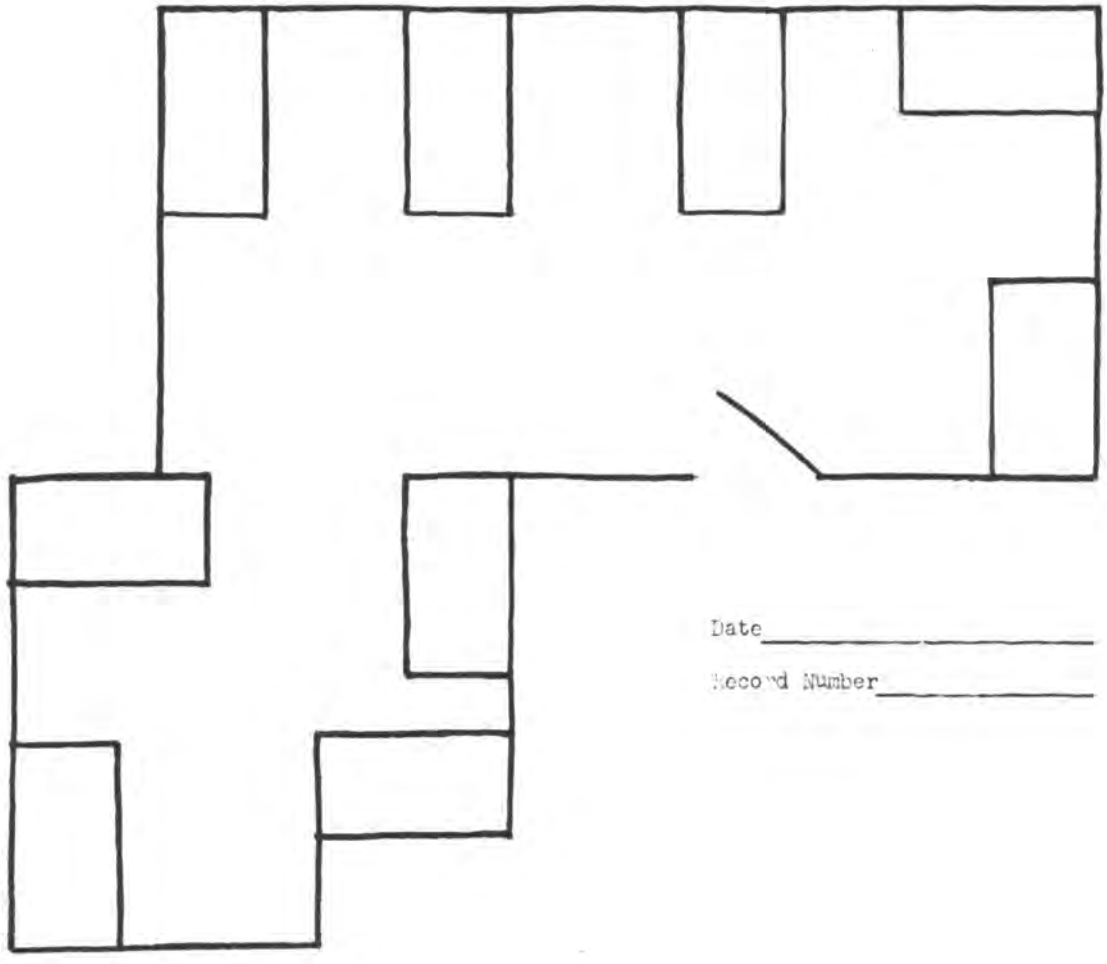


Figure II

Rest Room Chart - Park Terrace

Date_____ Record No._____

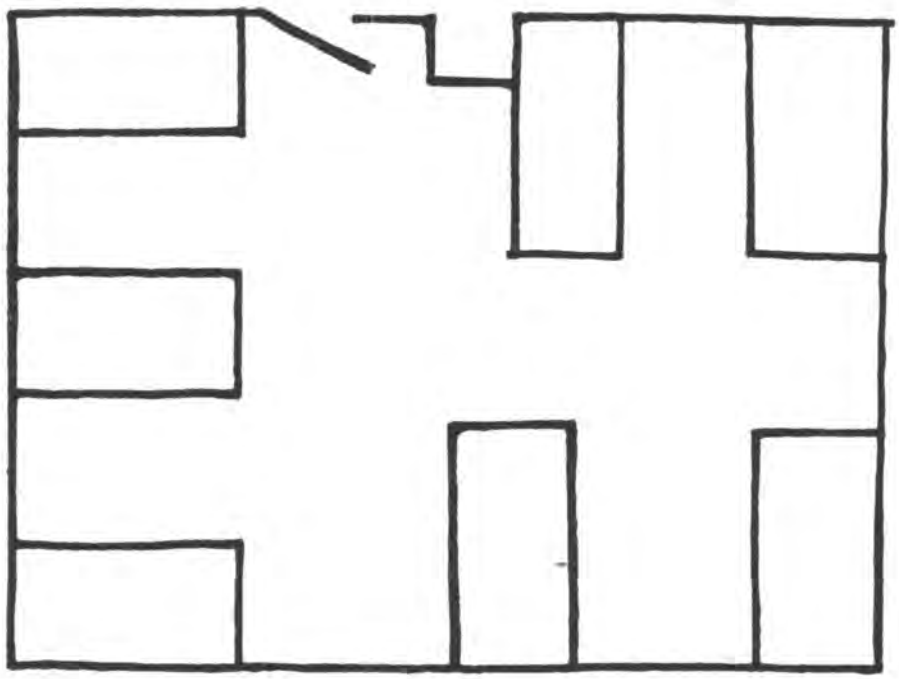

Figure III

INFORMATION ON CHILD'S REST AT HOME

Blank I Name _____

A. Naps

1. Time child is usually put to bed for nap _____
   How long does he rest? _____ Or sleep? _____
2. Does child rest alone in room? _____
   Shares room with whom? _____
   Shares bed? _____ With whom? _____
3. What is child allowed to do during rest period: play in bed ____, play off of bed ____, talk or sing ____, other activities _____
4. Does child object to resting? ____ If so, how does he show that he objects? _____
   _____
5. If child refuses to rest, what type of discipline is usually used? _____
   How does the child respond? _____
   _____
6. If the child no longer rests, when was the routine discontinued? _____
   Under what conditions? _____
   _____

B. Sleep at night

1. Time child is usually put to bed at night _____
   Time child falls asleep _____ Time child gets up in the morning _____ How much does the time vary _____
2. Does the child sleep alone in the room? _____
   Shares room with whom? _____
   Shares bed? _____ With whom? _____
3. Routine usually followed before going to bed (story, bath, etc.) _____
   _____
4. Child's activity while falling asleep _____
   _____
5. Does child object to going to sleep? _____
   If so, how does he show that he objects _____
   _____
6. If child refuses to go to sleep, what type of discipline is usually used? _____
   _____
   How does the child respond? _____
   _____

WHAT WOULD YOU DO?

Blank II
Name of child _____
Parent checking blank: Father ___ Mother ___

Here are some situations typical of many occurring in the life of a preschool child and his parents. Three ways of acting are suggested in each situation. Check the one which, in your opinion, represents the way you would meet the situation if it were your child, or add your own suggestion.

1. While he is supposed to be taking a nap, Billy entertains his toy dog by singing all the songs he knows. His mother:
   ___ a. reminds him that the doggie needs to be quiet, too.
   ___ b. lets him continue singing.
   ___ c. says, "Billy, you need to be quiet while you are resting."
   or d.

2. Mary calls to her father for a drink of water after she has been put to bed. Her father:
   ___ a. brings her a glass of water.
   ___ b. says, "You had a drink before you went to bed."
   ___ c. brings her a drink and says, "Now settle down and go to sleep," giving her an affectionate pat.
   or d.

3. During their afternoon nap, Susan and Tommy climb off their beds, get their small cars, and climb back to play quietly with them in the folds of the blankets. Their mother:
   ___ a. takes the cars away and tells them they must stay on their beds without playing during rest time.
   ___ b. lets them keep the cars to play with, but tells them not to get off their beds again during their nap.
   ___ c. does not interfere with their play.
   or d.

4. Bobby asks his mother, "Do I have to take a nap today?" His mother replies:
   ___ a. "You know you take a nap every afternoon."
   ___ b. "Yes, just like you do every day. When you've rested, we can go to the store together for groceries."
   ___ c. "No, you don't have to if you don't want to."
   or d.

5. Patsy asks for her coloring book and crayons when she goes into her room for her nap. Her mother:
   ___ a. gives her the books and crayons.
   ___ b. says, "Not during your nap, Patsy."
   ___ c. tells her she can color when she gets up.
   or d.

6. Paul is excited and stimulated after an active day, and when his father tells him it is time to go to bed, he says flatly, "No, I won't. I don't want to." His father:
   ___ a. picks him up in spite of his protests, carries him into his room, and begins to undress him.
   ___ b. says, "You've been having fun and don't want to leave, I know, but I'll go with you and be ready to read a story as soon as you're undressed."
   ___ c. says, "All right, you can play ten minutes longer, and then to bed you go."
   or d.

7. Jean, lying in bed, begins to make a noisy clucking sound, and her sister in the bed next to her imitates the noise. Their mother, coming by the door, hears them and:
   ___ a. goes on down the hall without any comment.
   ___ b. says, "It's time to be quiet now. You can make noises when you get up."
   ___ c. tells them if they continue to be noisy they will have to rest in separate rooms.
   or d.

8. Jimmy, who's supposed to be taking his afternoon nap, amuses himself by standing on the bed and falling down again on his face, making the bed squeak. His mother:
   ___ a. tells him to lie still while he is napping or she will have to punish him.
   ___ b. says, "Rest is a quiet time, Jimmy. You can sit up if you like, but falling down isn't resting."
   ___ c. ignores his activity.
   or d.

9. Carol has been resting fifteen minutes when she calls, "Can I get up, now?" Her mother replies:
   ___ a. "No, you're supposed to rest an hour and you've just started."
   ___ b. "Yes, run along and play outside."
   ___ c. "Lie still a little longer. When I finish ironing, I'll come in and read to you."
   or d.

10. Don refuses to come in when his mother tells him that it's time to come in and get ready for bed. His mother:
   ___ a. repeats her statement that it is time to come in.
   ___ b. ignores him, letting him remain outside a little longer.
   ___ c. takes his hand, saying, "Which door shall we go in?"
   or d.

11. Bob, age 2 1/2, gets absorbed in his play and has frequent toilet accidents, yet he resists suggestions that he go to the toilet. His mother:
   ___ a. discovering that he is usually wet about every three-quarters of an hour, watches the clock and takes him every thirty minutes, protest or no, so that he will stay dry.
   ___ b. watches Bob in his play and as he leaves an activity tries to be there to take his hand and suggest he come to toilet, even though she is not always in time to keep him dry.
   ___ c. leaves the responsibility for coming to the toilet up to him but changes him when he is wet, showing him how much longer this takes than if he had come in earlier and how much easier it would be to stay dry.
   or d.

12. Billy, who is 2 1/2, had been dry at night for several months when he entered nursery school. He enjoyed school and made a good adjustment but he began wetting the bed again and fussed at meal time, wanting to be fed although he had been feeding himself for some time. His mother wisely decided that she must:
___ a. take him out of nursery school.
___ b. undertake a campaign of correction immediately.
___ c. accept this behavior as part of his adjustment to a new experience.
or d.

13. Jill is playing with clay. She proceeds to flatten out everything she makes, saying, "I'm going to smash this," each time. Her mother says:
___ a. "You make such nice things, Jill. Why don't you leave them?"
___ b. "It's too bad to smash everything you make, Jill. Maybe you'd better do something else."
___ c. "It's all right to smash clay, Jill. Sometimes it feels good to smash things, doesn't it!"
or d.

14. John is angry because he can't go outdoors again. He shouts at his mother, "You old stink pot!" His mother says:
___ a. "I know how you feel. It makes you mad not to be able to go out again today."
___ b. "Let's talk about something pleasant, John,"
___ c. "You musn't talk to people that way, John. They won't like you."
or d.

15. Tom has a baby brother. The baby's coming has not seemed to disturb Tom, but one day his mother observes Tom taking the rubber doll he is playing with and spanking it hard. Then he throws it on the floor and stamps on it. His mother:
___ a. does nothing.
___ b. goes up to Tom quietly saying, "We must take care of the doll, Tom. You might put it in the carriage and take a walk."
___ c. says, "Tom, that's no way to treat the doll. You can't play with it if you do that."
or d.

TABLE XVIII

**Correlation Between Age in Months of Child at Beginning of Study and Total Activity Ratio of Incidents-Per-Minute**

| Child | Age in months at beginning of study | Total activity ratio of incidents-per-minute |
|---|---|---|
| Alan | 44 | .19 |
| Anne | 46 | 1.00 |
| Betty | 50 | .16 |
| Brian | 45 | .94 |
| Danny | 53 | .75 |
| JoAnne | 53 | .23 |
| Linda | 47 | .07 |
| Linden | 44 | .15 |
| Margie | 44 | .18 |
| Marjorie | 45 | .85 |
| Nikko | 48 | .73 |
| Ricky | 52 | .73 |
| Sandy | 53 | .79 |
| Scott | 49 | .98 |
| Steven M. | 50 | .31 |
| Steve S. | 45 | .79 |

$r = -.22$

TABLE XIX

Correlation Between Number of Months Enrolled in Nursery School at Beginning of Study and Total Activity Ratio of Incidents-Per-Minute

| Child | Months enrolled in nursery school at beginning of study | Total activity ratio of incidents-per-minute |
|---|---|---|
| Alan | 0 | .19 |
| Anne | 3 | 1.00 |
| Betty | 2 | .16 |
| Brian | 2 | .94 |
| Danny | 7 | .75 |
| JoAnne | 3 | .23 |
| Linda | 0 | .07 |
| Linden | 0 | .15 |
| Margie | 0 | .18 |
| Marjorie | 3 | .85 |
| Nikko | 1 | .73 |
| Ricky | 14 | .73 |
| Sandy | 3 | .79 |
| Scott | 3 | .98 |
| Steven M. | 3 | .31 |
| Steve S. | 3 | .79 |

r = .30

TABLE XX

Correlation Between Strictness Standards Scores and Acceptance of Feelings Scores

| Child | | Strictness of standards | Acceptance of feelings |
|---|---|---|---|
| Becky | Mother | 40 | 5 |
| | Father | 34 | 6 |
| Betty | Mother | 32 | 2 |
| | Father | 40 | 1 |
| Brian | Mother | 34 | 4 |
| | Father | 34 | 2 |
| Linda | Mother | 34 | 2 |
| | Father | 34 | 2 |
| Linden | Mother | 34 | 2 |
| | Father | 26 | 1 |
| Marjorie | Mother | 32 | 4 |
| | Father | 50 | 2 |
| Mike | Mother | 13 | 4 |
| | Father | 28 | 2 |
| Nikko | Mother | 26 | 3 |
| | Father | 40 | 4 |
| Ricky | Mother | 26 | 5 |
| | Father | 32 | 4 |
| Scott | Mother | 34 | 4 |
| | Father | 31 | 1 |
| Steven M. | Mother | 40 | 3 |
| | Father | 38 | 2 |
| Steve S. | Mother | 36 | 3 |
| | Father | 30 | 5 |

$r = -.27$

TABLE XXI

Correlation Between Amount of Difference Between Strictness of Standards Scores and Amount of Difference Between Acceptance of Feelings Scores of Each Child's Mother and Father

| Child | Difference between strictness scores | Difference between acceptance scores |
|---|---|---|
| Becky | 6 | 3 |
| Betty | 8 | 1 |
| Brian | 0 | 2 |
| Linda | 0 | 0 |
| Linden | 12 | 1 |
| Marjorie | 28 | 2 |
| Mike | 15 | 2 |
| Nikko | 14 | 1 |
| Ricky | 6 | 1 |
| Scott | 3 | 3 |
| Steven M. | 2 | 1 |
| Steve S. | 6 | 2 |

r = .08

TABLE XXII

Correlation Between Strictness of Standards Scores of Parents and Total Activity Ratio of Child

| Child | Total activity ratio | | Strictness of standards score |
|---|---|---|---|
| Alan | .19 | Mother | 27 |
| | | Father | |
| Betty | .16 | Mother | 32 |
| | | Father | 40 |
| Brian | .94 | Mother | 34 |
| | | Father | 34 |
| Linda | .07 | Mother | 34 |
| | | Father | 34 |
| Linden | .15 | Mother | 34 |
| | | Father | 26 |
| Margie | .18 | Mother | 27 |
| | | Father | |
| Marjorie | .85 | Mother | 32 |
| | | Father | 50 |
| Nikko | .73 | Mother | 26 |
| | | Father | 40 |
| Ricky | .73 | Mother | 26 |
| | | Father | 32 |
| Sandy | .79 | Mother | 36 |
| | | Father | |
| Scott | .98 | Mother | 34 |
| | | Father | 31 |
| Steven M. | .31 | Mother | 40 |
| | | Father | 38 |
| Steve S. | .58 | Mother | 36 |
| | | Father | 30 |

r = .11

TABLE XXIII

Correlation Between the Total Activity Ratio of the Child and the Amount of Difference Between the Strictness of Standards Scores of His Mother and Father

| Child | Total activity ratio | Difference between strictness scores |
|---|---|---|
| Betty | .16 | 8 |
| Brian | .94 | 0 |
| Linda | .07 | 0 |
| Linden | .15 | 12 |
| Marjorie | .85 | 28 |
| Nikko | .73 | 14 |
| Ricky | .73 | 6 |
| Scott | .98 | 3 |
| Steven M. | .31 | 2 |
| Steve S. | .58 | 6 |

r = .19

TABLE XXIV

Correlation Between Strictness of Standards Score of of Mother and Total Activity Ratio of Child

| Child | Total activity ratio | Strictness of standards score |
|---|---|---|
| Alan | .19 | 27 |
| Betty | .16 | 32 |
| Brian | .94 | 34 |
| Linda | .07 | 34 |
| Linden | .15 | 34 |
| Margie | .18 | 27 |
| Marjorie | .85 | 32 |
| Nikko | .73 | 26 |
| Ricky | .73 | 26 |
| Sandy | .79 | 36 |
| Scott | .98 | 34 |
| Steven M. | .31 | 40 |
| Steve S. | .58 | 36 |

r = -.02

TABLE XXV

Correlation Between Strictness of Standards Score of Father and Total Activity Ratio of Child

| Child | Total activity ratio | Strictness of standards score |
|---|---|---|
| Betty | .16 | 40 |
| Brian | .94 | 34 |
| Linda | .07 | 34 |
| Linden | .15 | 26 |
| Marjorie | .85 | 50 |
| Nikko | .73 | 40 |
| Ricky | .73 | 32 |
| Scott | .98 | 31 |
| Steven M. | .31 | 38 |
| Steve S. | .58 | 30 |

r = .44

TABLE XXVI

Correlation Between Acceptance of Feeling Score of Father and Total Activity Ratio of Child

| Child | Total activity ratio | Acceptance of feelings score |
|---|---|---|
| Betty | .16 | 1 |
| Brian | .94 | 2 |
| Linda | .07 | 2 |
| Linden | .15 | 1 |
| Marjorie | .85 | 2 |
| Nikko | .73 | 4 |
| Ricky | .73 | 4 |
| Scott | .98 | 1 |
| Steven M. | .31 | 2 |
| Steve S. | .58 | 5 |

r = .26

TABLE XXVII

Correlation Between Acceptance of Feelings Scores of Parents and Total Activity Ratio of Child

| Child | Total activity ratio | | Acceptance of feelings scores |
|---|---|---|---|
| Alan | .19 | Mother | 3 |
| | | Father | |
| Betty | .16 | Mother | 2 |
| | | Father | 1 |
| Brian | .94 | Mother | 4 |
| | | Father | 2 |
| Linda | .07 | Mother | 2 |
| | | Father | 2 |
| Linden | .15 | Mother | 2 |
| | | Father | 1 |
| Margie | .18 | Mother | 3 |
| | | Father | |
| Marjorie | .85 | Mother | 4 |
| | | Father | 2 |
| Nikko | .73 | Mother | 3 |
| | | Father | 4 |
| Ricky | .73 | Mother | 5 |
| | | Father | 4 |
| Sandy | .79 | Mother | 2 |
| | | Father | |
| Scott | .98 | Mother | 4 |
| | | Father | 1 |
| Steven M. | .31 | Mother | 3 |
| | | Father | 2 |
| Steve S. | .58 | Mother | 3 |
| | | Father | 5 |

r = .42

TABLE XXVIII

Correlation Between Playing-The-Adult-Role Ratio of Child and Strictness of Standards Scores of Parents

| Child | Playing-the-adult-role incidents-per-minute ratio | | Strictness of standards scores |
|---|---|---|---|
| Alan | .07 | Mother | 27 |
| | | Father | |
| Betty | .00 | Mother | 32 |
| | | Father | 40 |
| Brian | .01 | Mother | 34 |
| | | Father | 34 |
| Linda | .01 | Mother | 34 |
| | | Father | 34 |
| Linden | .02 | Mother | 34 |
| | | Father | 26 |
| Margie | .06 | Mother | 27 |
| | | Father | |
| Marjorie | .05 | Mother | 32 |
| | | Father | 50 |
| Nikko | .03 | Mother | 26 |
| | | Father | 40 |
| Ricky | .00 | Mother | 26 |
| | | Father | 32 |
| Sandy | .02 | Mother | 36 |
| | | Father | |
| Scott | .06 | Mother | 34 |
| | | Father | 31 |
| Steven M. | .07 | Mother | 40 |
| | | Father | 38 |
| Steve S. | .00 | Mother | 36 |
| | | Father | 30 |

r = -.11

TABLE XXIX

Correlation Between Playing-The-Adult-Role Ratio of Child and Acceptance of Feelings Scores of Parents

| Child | Playing-the-adult role incidents-per-minute ratio | | Acceptance of feelings scores |
|---|---|---|---|
| Alan | .07 | Mother | 3 |
| | | Father | |
| Betty | .00 | Mother | 2 |
| | | Father | 1 |
| Brian | .01 | Mother | 4 |
| | | Father | 2 |
| Linda | .01 | Mother | 2 |
| | | Father | 2 |
| Linden | .02 | Mother | 2 |
| | | Father | 1 |
| Margie | .06 | Mother | 3 |
| | | Father | |
| Marjorie | .05 | Mother | 4 |
| | | Father | 2 |
| Nikko | .03 | Mother | 3 |
| | | Father | 4 |
| Ricky | .00 | Mother | 5 |
| | | Father | 4 |
| Sandy | .02 | Mother | 2 |
| | | Father | |
| Scott | .06 | Mother | 4 |
| | | Father | 1 |
| Steven M. | .07 | Mother | 3 |
| | | Father | 2 |
| Steve S. | .00 | Mother | 3 |
| | | Father | 5 |

r = .09