THE EFFECTS OF SIBLING STATUS ON CONFLICT PERCEPTION AND CONFLICT RESOLUTION IN PRESCHOOL BOYS

Thesis for the Degree of M. A. MICHIGAN STATE UNIVERSITY GAIL FREEDMAN MELSON 1969

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ABSTRACT

THE EFFECTS OF SIBLING STATUS ON CONFLICT PERCEPTION AND CONFLICT RESOLUTION IN PRESCHOOL BOYS

By

Gail Freedman Melson

This study explored how preschool boys deal with fantasy conflict situations. A sentence completion projective test measured the resolution of family, sibling, peer, and teacher conflicts. In order to account for varying predispositions toward conflict perception, a TATtype projective measure was also administered. This test measured spontaneous conflict reported in neutral situations, depicting characters similar to those in the sentence completion test.

The study hypothesized that conflict perception would not be generally related to any one mode of conflict resolution, i.e., aggression. Instead, it was felt that both conflict perception and resolution would be situationspecific rather than general personality traits. Independent variables of ordinal position and number of siblings were selected as a basis for predictions about the situational determinants of conflict perception and resolution. Specifically, it was hypothesized that (1) Firstborn boys would resolve fantasy conflicts with parents with less aggression than would later-born boys, but that no differences in sibling conflict resolution, or in conflict perception generally would be found. (2) Boys with siblings would perceive more conflict on sibling-related TAT-type pictures, but not on others. (3) Boys with siblings would perceive (and resolve) siblings and peer situations as significantly more different from one another than would "only" boys. (4) Boys with siblings would resolve fantasy conflicts involving siblings more aggressively than would "only" boys.

Data were collected from 35 preschool boys. Nine were "only" children, 26 had at least one sibling. Of those with siblings, ten were first-born, the remaining 16 later-born.

The study found that, as predicted, conflict perception was generally unrelated to modes of conflict resolution. Evidence supporting predictions 1 and 3 were found, but 2 and 4 were not confirmed. The application of discrimination learning approaches and Schachter's work on ordinal position effects in fear-arousing situations were discussed. Among those factors suggested as responsible for the nonconfirmation of hypotheses 2 and 4 were sample size, weaknesses in the construction of the particular measures used, and general limits in the use of projective material.

THE EFFECTS OF SIBLING STATUS ON CONFLICT PERCEPTION AND CONFLICT RESOLUTION

IN PRESCHOOL BOYS

Bу

Gail Freedman Melson

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INTRODUCTION

Parent-Child Conflict

Conflict is an important dimension of any social interaction. Viewed in its social context, conflict includes not merely competing responses of approach and avoidance, but also the perception of discrepant motives and responses by interacting persons. In these broader terms, conflict will be invariably a central concern of parent-child relationships. Socialization recurrently pits the desires of the parent against the desires of the child. Each tries to influence and mould the other according to his own image (Hoffman, 1960).

This view assumes that the child learns, through socialization, to perceive conflict, to face it, and to evolve patterns for its control. Hoffman (1960) infers from this premise that amount and type of conflict for the child will vary with specific socialization technique. Following this premise, Jackson (1956) studied parents' verbal solutions to parent-child problems and found mothers both more coercive and more vacillating than their children. In several studies by Morgan and Gaier (1956, 1957), the child's fantasy reactions to common punishment situations were compared with those of his mother. In general,

mothers were more extra-punitive and children were more intra-punitive in their reactions to fantasy punishment.

Perceived Conflict

Underlying these studies is the assumption that parent-child conflict is a by-product of socialization and thus is identical for children exposed to the same punishments. However, Jackson's study (1956). in its emphasis on the often contrasting behaviors of mother and father and the multiplicity and variable frequency of coercive methods, suggests that a one-to-one relation between a problem situation and type of control rarely exists. Furthermore, Morgan and Gaier's work (1956, 1957) contrasted not only actual punishment behaviors of mothers vs. children, but also their perceptions of each other's role in mother-child conflicts. These discrepant perceptions are as important as are socialization techniques in understanding family conflict. Thus, different reactions to the same punishment situation may reflect perceived differences in its frequency and character. rather than global tendencies toward extra- or intra-punitiveness (Rosenzweig, 1944).

The same criticism applies to the Sears, Rau, and Alpert study (1965) which, in measuring the strength of antisocial aggression in preschool children, does not account for possible differences in the degree to which children perceive similar situations as similarly

conflictful. Miller's (1959) application of an approachavoidance gradient to conflict makes a similar mistake in defining conflict as a function of the joint tendencies to aggress and avoid. The class of possible reactions to conflict are thus arbitrarily dichotomized by theoretical neatness. As Buss (1961) points out, the tendencies to aggress and to avoid need to be measured independently and then related to the presence of conflict. Here again, the perception of conflict has been mistakenly fused with predominant reactions to it. In a slightly different form, this same error is made in studies of doll play aggression (Levin & Sears, 1956; Sears, P., 1951), wherein spontaneous expressions of fantasy aggression are assumed to reflect at the same time conflict perception and a pattern of conflict behavior.

The present study does not assume that reactions to parent-child conflicts vary with punishment techniques. More importantly, by obtaining independent measures of perception of conflict and patterns of conflict resolution, the amount and character of conflict for the child are conceptually distinguished from punishment situations in which the child copes with an ongoing conflict. In several studies by Kagan (1956, 1960), the emphasis is on determining the adult's perception of parental roles, independent of experiences with punishment. He found that children perceived fathers as more fear-arousing and less nurturant

than mothers and suggested that these differences were not a function solely of parental behavior. This approach, then, enables one to relate behavior patterns of "conflict resolving" to frequency of conflict perception in a given situation. Rather than rely on reported intensity or consistency of feeling as indices of a global habit strength, reactions to situations often perceived as conflictful could be justly considered more central for the child than reactions to a truly hypothetical situation. When different situations are ordered in terms of their perceived conflictfulness, conflict resolution responses may be similarly-ranked. In other words, behavior patterns are weighted for their phenomenal importance to the child. The latter is a crucial and often ignored intervening variable in studies of conflict behavior and explains the necessarily limited scope of attempts to relate responses like agression directly to sibling position, child-rearing practices, Freudian identification, or other independent variables.

Role of Siblings

In separately measuring conflict perception, all the important "actors" in the child's world--teachers, playmates, story characters--may be seen as more or less conflictful vis-a-vis the child. Besides the parents, of primary importance in this regard are siblings, since they

generally interact more frequently with American preschool youngsters than do teachers or peers (Radke, Trager & Davis, 1949), although important variations in reported frequency of interaction have been noted by Koch (1960).

Extensive work on the structuring of sibling conflict has been done chiefly by Koch (1956a, 1956b, 1960). Her earlier studies obtained teachers' rating of general personality characteristics, such as initiative, curiosity, and responsibility, of four to six-year-olds from two-child families. Differences in these trait ratings due to ordinal position, sex of subject and sibling, and spacing between siblings were determined. In the 1960 study, direct interviews with children were used to determine their feelings about siblings and parents. In presenting data on reported frequency of play and quarrelling with siblings, perceived parental alignment in sibling quarrels, and feelings about peers, teachers, and school, complex interactions between ordinal position, sex of child and sibling, and spacing were indicated. For example, Koch (1960) found that second-born children reported playing less frequently with siblings than first-born children and that this difference increased with the age difference between siblings. Maternal favoritism for the sibling in a quarrel was indicated more frequently by boys than girls, by first-born children (of either sex) than second-born children, and by children spaced two-to-four years from their siblings as compared with children closer in age.

Koch's findings are confined to children having one sibling and include no independent measure of how the child perceives parent-child conflict. Consequently, they cannot reveal what general effect the presence of siblings might have on the frequency and character of perceived sibling or parent-child conflict. In addition, Koch only partially delineated the relation between perceived parent-child and sibling conflicts, since the former was studied only within the context of ongoing sibling quarrels.

The present study obtains independent projective measures of conflict perception and conflict resolution in five paired situations and two unpaired situations relatively common to the preschooler. Modes of conflict resolution for frequently perceived situations can be then considered more central for the child than the resolution of conflicts dealt with infrequently.

Ordinal Position

Within this context, the effects of ordinal position and number of siblings on conflict perception and resolution are studied. In Koch's study (1960), discussed above, second-born children reported quarrelling with their sibling more frequently than first-born children, although the latter reported winning conflicts more frequently than the former. MacArthur (1956) points out that first-born children tend to have a more conscientious, constricted interpersonal style than later-born children. Schachter's

work (1958) on first-born college students reveals them as more fearful and affiliative in fear-provoking situations than later-born students. The personality differences pointed out in these studies interact with differences in socialization experience, as Clausen and Williams (1963) indicate, first-born children generally having overconcerned parents, more intense parent-child interaction, and consequently, more intense displacement experience with the advent of younger siblings.

Such socialization experiences indicate that the affiliative and dependency behavior described by Schachter may be situation-specific. In other words, first-born children will exhibit such behavior toward parents, but not necessarily toward siblings or peers. Koch's finding (1960) that first-born children reported winning sibling quarrels more frequently than second-born children supports this hypothesis. Furthermore, the higher need achievement in first-born children (Rosen, 1961), coupled with the rivalry of an intense displacement experience, suggest the prediction that first-born children may resolve conflict with parents by acquiescent means and conflict with siblings or peers by aggressive or domineering behavior. This study predicts that such differences, if found, are not related to differential rates of conflict perception, but rather represent different ways of handling different types of conflict.

Number of Siblings and Conflict

Two types of predictions are tested with respect to the effects of number of siblings on conflict perception and conflict resolution. First, different rates of conflict perception in sibling-related fantasy may be predicted for children with siblings, as opposed to "only" children. This prediction is based on the reasonable assumption that "only" children, having no opportunity to interact with siblings, would be less likely to report fantasy conflict with them. It also is tempting to assume that "only" children interact with parents more frequently than children with siblings, and thus, have more conflict with them. However, increased frequency of interaction with parents does not necessarily follow from absence of siblings; even if it did, one could not assume that frequency of interaction is linearly related to frequency of conflict perception.

Sibling vs. Peer Conflict

The relationship between sibling and peer conflict has not been consistently described in previous studies. Koch (1960) found parallels between frequency of reported conflict with siblings and degree of withdrawal from peers. Children judged to be problems by teachers reported more frequently than non-problem children that their mothers sided against them in sibling quarrels (Koch, 1956b). Similarly,

Franco (1965) found a significant positive correlation between perception of mother and of teacher as "helper" or "disciplinarian" (.53 > r > .43). On the other hand, Bandura and Walters (1964) point out that conflict behavior in and outside the home is not predictable simply as a function of the similarity between conflict situations. The concept of discrimination learning implies that certain perceptial distinctions are made. Bendura and Walters' emphasis on the displacement of aggression through discrimination learning therefore suggests an inverse relation between sibling and peer conflict perception for children with siblings. One might expect the more limited experience of "only" children to result in a more blurred discrimination.

A second class of predictions concerned with sibling and peer conflict relates frequency of conflict perception to modes of conflict resolution. The present study distinguishes three types of conflict resolution: aggression, non-aggressive domination, and acquiescence. The last includes withdrawal and denial of conflict. Important differences in such resolution techniques between "only" children and those with siblings have already been found. Levin and Sears (1956) found that "only" boys exhibited more fantasy aggression than boys with siblings, while Sears (1951) found that "only" children of both sexes were relatively more aggressive in doll

play. These findings indicate rough differences in behavior patterns between "only" children and those with siblings, but not how such differences are related to conflict perception.

The foregoing discussion of ordinal position effects emphasizes situation-specific conflict behaviors. Previous studies of family size, which generally fail to control for socio-economic status, provide a poor basis for speculating about a similar specificity of conflict behavior based on differences in the number of siblings. Bossard and Boll's study (1956) of families of six and more children indicates reliance on discipline, physical punishment, and participation by older siblings in disciplinary functions. It is far from clear, of course, that such factors increase linearly with the addition of each child.

Little work has been done on differences in handling conflict within relatively small families. Based on data from larger families, one might suggest the prediction that children with siblings will show more aggressive or domineering responses to sibling-related conflict situations than will "only" children and that such responses will be greater for children with two or three siblings than for those with only one. Note that this prediction, together with the earlier one that children with siblings would perceive more conflict on sibling-related pictures,

imply here a positive correlation between conflict perception and aggressive conflict resolution on siblingrelated pictures for children with siblings.

Conflict resolution responses in sibling vs. peer conflicts may be predicted from our previous disccussion of conflict perception differences expected in these situations. If it is true, as Bandura and Walters' work (1964) suggests, that children with siblings tend to perceive sibling and peer situations differently, one might expect correspondingly different ways of handling such conflicts. Little evidence exists for predicting the exact nature of such differences. Earlier, we discussed the prediction that children with siblings would be more aggressive or domineering in resolving sibling conflicts than would "only" children, and pointed out weaknesses in earlier studies suggesting such a difference. However, once this hypothesis is entertained, a discrimination learning approach would necessitate predicting, for children with siblings, more acquiescent resolutions of peer conflict. but no significant difference for "only" children. 0fcourse, one should keep in mind that this approach is complicated by the kinds of aggressive models the child has and the degree to which they encourage the child to discriminate between situations. However, Bandura and Walters! work on anti-social aggression in adolescent boys (1959) suggests rather different predictions concerning

the relation between parents and teachers as objects of conflict. In general, they found that when anxiety over expressing direct aggression was high, more indirect modes of aggression would be used to reduce hostility. For example, fear of expressing direct aggression toward the father resulted in the displacement of overt hostility to persons occupying similar roles outside the home, particularly teachers. Similarly, anxiety over direct aggression with peers resulted in a preference for more subtle forms of conflict resolution.

Anxiety Over Aggression

In Bandura and Walters' work (1959), the concept of anxiety functions as a critical variable in explaining the gradual discrimination of aggressive behavior. As discussed above, the present study predicts that first-born children will be less aggressive in authority situations involving parents or teachers than in non-authority situations involving siblings or peers. Similarly, children with siblings will discriminate in their reactions to siblings vs. peers, presumably being more acquiescent toward the latter. Following Bandura and Walters, these predictions would imply corresponding differences in anxiety over aggression. Children who use indirect, non-aggressive conflict resolution are also those who will show some anxiety about aggression.

In the present study, children who failed to perceive conflict on two pictures designed to evoke it provide a rough measure of anxiety over aggression toward adult figures. Since no similar measure of anxiety over aggression toward peers was used, it was not possible to test the prediction that such anxiety is more pronounced among children with siblings than "only" children.

Summary

In general, the present study tests predictions concerned with the relation between conflict perception and conflict resolution in a variety of common situations. It is restricted to nursery school boys to enhance comparability with previous studies. (Levin, H. and Sears, R., 1956; Sears, P., 1951; Sears, Rau, and Alpert, 1965) Moreover, such studies indicate that girls are less likely to express fantasy aggression than boys. For example, Moore (1966) found that boys perceived more violence than did girls when aggression was presented tachtiscopically.

The present study basically consists of presenting figures suggesting mother, father, sibling, peer, and teacher, about which the child describes fantasy interactions. The way he identifies these figures and the interaction he describes provide a measure of conflict perception. Each child also provides endings to a number of hypothetical conflict situations involving all the above

figures in various combinations. From these story endings, patterns of fantasy conflict resolution are determined.

Predictions

The independent variables are ordinal position and sibling status. <u>S</u>s are divided into first-born vs. laterborn children; "only" children vs. <u>S</u>s with siblings. The main predictions of the study are summarized below:

1. First-born <u>Ss</u> will resolve fantasy conflict situations involving parental figures with significantly more acquiescent or non-aggressive domination responses than second-born and younger <u>Ss</u>. For both groups, sibling and peer conflicts will be resolved primarily by aggression and non-aggressive domination. No significant differences in conflict perception are predicted.

2. Children with siblings will report significantly more conflict perception involving siblings than "only" Ss.

3. Children with siblings will perceive sibling and peer situations as significantly more different from one another than will "only" Ss.

4. <u>S</u>s with siblings will report more aggressive and domineering resolutions to fantasy conflicts involving siblings than Ss with siblings.

5. Because of predictions #3 and 4 above, $\underline{S}s$ with siblings will report more acquiescent responses to fantasy conflict involving peers than "only" Ss.

6. Because of prediction #1 above, first-born children will show more anxiety over aggression toward adult figures than will later-born children.

METHOD

Subjects

The <u>S</u>s were 35 boys (3:7 - 5:5 years old) regularly attending two nursery schools. Nine were "only" children when tested, 16 had one sibling, and 10 had two or more. Of those with siblings, 10 are first-born, while 16 are second-born or younger. All boys attending one school, except three "only" children, were tested and included. One child had recently undergone major surgery, and the other two were reluctant to be with the examiner. Therefore, several <u>S</u>s without siblings attending another school were subsequently included.

As children of university faculty, they shared a relatively homogeneous socio-economic background. In interpreting findings, important class differences in conflict perception and behavior should be kept in mind (Rosen, 1964).

All <u>S</u>s were tested individually in a special room equipped with low chairs and table and assorted toys. Prior to testing, <u>E</u> spent several days getting acquainted with the <u>S</u>s and familiarizing them with the test area. All <u>S</u>s, with the exception of the three discussed above, appeared eager to participate and spoke freely with the E.

Tests

Each <u>S</u> took two projective tests designed to measure perception of conflict and conflict resolution respectively. The former consisted of six ink-on-white cardboard silhouette drawings, each 6" x 8", presented singly (see Appendix A). The contents of each picture were as follows:

1. One very small and one larger child kneel and face each other, with a small object between them. (Child-baby picture)

2. Identical to #1 above, but with the addition of a woman standing behind and between the children. (Womanchild-baby picture)

3. Identical to #2 above, but with the addition of a man standing to the left of the woman. (Man-woman-childbaby picture)

4. Two small children of equal size sit next to each other at a low table. (Child-child picture)

5. A woman and small child are standing and facing each other. The child has arms outstretched in opposite directions and one foot up, almost touching the woman's leg. The woman's arms are extended over the child's head. (Woman-child picture)

6. The same as #5 above, except that a man is substituted in the same position as the woman. (Man-child picture)

The second projective measure consisted of six short unfinished stories similar in form to the Madeleine Thomas stories (Rabin & Haworth, 1960). To each story, the <u>S</u> supplied an ending with the aid of small flexible plastic dolls corresponding to story characters. The stories, identified by conflict area represented, follow:

1. "A boy is playing with his favorite toy. Baby comes in and takes it away. What does the boy do?" (Childbaby conflict)

2. "Baby takes the boy's new toy away. Mother comes in. What happens?" (Child-baby conflict with mother present)

3. "A boy and his friend are in the nursery school. They want to play outside, but teacher says they can't play outside now. What happens?" (Teacher-child conflict)

4. "A boy is playing on the seesaw in the nursery school with his friend. A little girl comes and wants to get on. What do the boys do?" (Child-child conflict)

5. "Mother says it's time to go to bed now. The boy doesn't want to go to bed now. What happens?" (Motherchild conflict)

6. "Father is at the table with the little boy.Father is angry at the little boy. Why? What happened?"(Father-child conflict)

Specific story content was adapted from Koch's data (1960) on sibling quarrels and from Dawe (1934), who reported

that peer conflicts most commonly arise over possessions. It should be noted that, with the exception of picture 3 and story 3, each story deals with characters comparable to those depicted in corresponding picture. However, since the pictures leave $\underline{S}s$ free to identify male and female figures as they wish, the correspondence is far from perfect. Nevertheless, most $\underline{S}s$ did identify figures as family members. Story #3 was included to assess possible differences between teacher and mother characters as the objects of fantasy aggression. It was thought that comparable pictures, unambiguously portraying "teacher" vs "mother" figures, would have lacked comparability with the other pictures, and these were omitted in favor of picture #3 above.

Procedure

Tests were administered in sessions several days apart. In the conflict perception pictures, the <u>S</u> was encouraged to make up a story about each picture, and to say whom the figures represented and what they might be doing, thinking, or feeling. It was emphasized that they could make up anything they wished and that everyone's stories would be unique. Standard probes were used in a constant order and care was taken not to lead the <u>S</u>. Picture order was randomized for each <u>S</u>.

The <u>E</u> recorded the <u>S</u>'s responses <u>verbatim</u> on 3" x 5" cards, asking for repetition when contents were unclear. Responses made two minutes after presentation were not

recorded. No attempt was made to disguise the recording task. The \underline{E} told \underline{S} s that she was interested in their stories and wanted to write each one down. Finally, care was taken to keep the testing situation flexible and to encourage verbalization.

Conflict resolution stories were administered as follows: the <u>E</u> told the story with flexible plastic dolls, ranging from $l\frac{1}{2}$ " to 3", each pink-fleshed and dressed in sex- and age-appropriate clothing. The <u>E</u> then handed the dolls to <u>S</u> and asked him to finish. The procedure was explained and probes were used as above. When <u>S</u> responded only with "don't know" to a given story, that was recorded as his story completion.

Coding

Two scores were obtained for responses to each conflict perception picture--story length score in "units" and a conflict perception score, expressed as a percentage. The former was derived by totalling all simple sentences or sentence phrases in a given story. The latter score indicates the percentage of total units clearly expressing conflict. Identity of characters (with one exception, see #7 below) and direction of conflict were not scored. The coding manual identifies 7 classes of conflict perception:

1. Negative affect: "The boy hates the man."

2. Physical or verbal aggression between characters or against objects: "The boy is hitting the man." "The baby smashes the toy."

3. Wants which are thwarted, ignored, or delayed by others: "The boy wanted the banana, but the lady woundn't give it to him."

4. Superiority of one character over another, as in boasting, bragging, taunting: "I'm smarter than you are."

5. Coercion (method unspecified): "She's making him march."

6. Commands, implying involuntary action: "Put your shoes on right now."

7. Identification of characters as frightening or aggressive, even though the interaction described may be neutral: "The boy is running over to the monster."

The actual coding procedure involved coding every unit, as either expressing positive affect or activity, conflict (as above), or neutral interaction.

Turning to the coding of conflict resolution stories, four scores were obtained for each story ending--story ending length, in units identical to that previously discussed, an aggression score, a non-aggressive domination score, and an acquiescence score, each expressed as a percentage of total story-ending units. These categories are based on, but are not identical to, those of Anderson (1939, 1951) and Hanfmann (1935). They were chosen because they best

characterize the data and enable easy comparison between conflict perception and its modes of resolution. In general, any unit which could not readily be categorized was entered as "other." Thus, a <u>S</u>'s conflict resolution scores for a given story rarely summed to 100 percent.

As with the conflict perception pictures, character identity and direction of conflict were ignored. The omission of character identity is particularly important here, since type of conflict resolution naturally varies with the perspective of each character. When one child dominates, the other acquiesces to him. Since it could not be assumed that all <u>Ss</u> identified with the little boy in all stories, each interaction was coded as stated in the story, without regard for other character perspectives. Major criteria for each scoring category follow:

Aggression: Physical or verbal force. Intended or fantasy force.

Non-aggressive domination: Coercion or punishment, with the means unspecified.

Acquiescence: (1) Commands obeyed without coercion. (2) Voluntary acceptance of another's wishes, rationalizations of such acceptance, including denial of conflict. (3) Withdrawal from conflict. (4) Conflict prevention via compensation or bargaining.

In addition to scores for individual stories and story endings, total conflict perception (CP),

aggression (Ag), non-aggressive domination (Non-Ag Dom), and Acquiescence (Acq) scores were computed for each S.

Both the \underline{E} and a coder unfamiliar with $\underline{S}s$ or the hypotheses of the study rated all stories and story endings. Pearson product-moment coefficients of correlation were:

1.	Child-baby picture:	+.90
	Child-baby story ending:	+.89
2.	Child-child picture:	+.88
	Child-child story ending:	+.85
3.	Man-child picture:	+.87
	Father-child story ending:	+.89
4.	Woman-child picture	+.96
	Mother-child story ending:	+.97
5.	Woman-child-baby picture:	+.88
	Mother-child-baby story ending	+.98
6.	Man-woman-child-baby picture:	+.94
	Teacher-child story ending:	+.91

Test Reliability

The split-half reliability test was not used here because it assumes that the projective measure in question has parallel halves (Murstein, 1965). Other problems affecting the reliability of projective techniques as listed by Murstein (1965) are as follows: (1) differences in scoring ability, (2) halo effects, (3) use of descriptive or interpretive categories rather than formalistic ones, (4) test length, (5) verbal fluency, and (6) effect of the examiner. The degree to which the two projective measures used here are susceptible to each of these problems will be discussed in turn.

1. Differences in scoring ability: An extensive training period established comparability in scoring methods between the examiner and a coder unfamiliar with the <u>Ss</u> or testing procedure. As Murstein suggests, training manuals with practice protocols were used. Since inter-coder reliabilities were sufficiently high after the first full coding of the data, differences in scoring ability were not considered to present any problem.

2. Halo effects: This refers to the fact that the scoring of a single response unit is often influenced by one's impression of the entire protocol. This may occur at several levels. First, within an individual story, the coding of any given unit may be influenced by knowledge of the whole story. Similarly, even if the whole story is not seen, the coding of earlier items will influence interpretation of ambiguous responses appearing later. Secondly, the <u>S</u>'s score on any one story may be partially determined by knowledge of his scores on other stories.

The latter problem may be disposed of rather easily. Each of the <u>S</u>'s six conflict perception stories and six conflict resolution story endings was typed on separate cards and shuffled before coding. Furthermore, the code sheets grouped the data by picture and story rather than by <u>S</u>,

so that an individual's total score could not be determined until all stories had been coded.

Within-story halo effects posed a more subtle and pervasive problem. The disorganized nature of young children's stories frequently made examination of the whole a necessary condition for the unambiguous coding of a part. In the following example:

"Girl and a giant going step and step. Girl's doing this with her hands (mimicking picture) because he hit the girl. Because the girl hit him back."

story context was the final arbiter in coding several items in themselves ambiguous. Under these circumstances, the persistance of halo effects must be recognized. However, Murstein (1965) describes them principally as a deterrent to obtaining adequate inter-scorer reliability, since each rater may code ambiguous items as a subtle expression of a different over-all trait. While the high inter-coder reliability obtained here does not necessarily indicate the absence of halo effects, at least it suggests the relatively low probability of their systematic occurrence. However, a high correlation between similar halo effects on two different scores is still possible.

3. Descriptive vs. formal categories: Since formal categories yield higher reliability than those which rely on inferred meanings, effort was made to score only those units explicitly indicating conflict perception, or conflict resolution modes, reserving problematic sentences for a catch-all

"other" category. The scoring system attempted to balance increasing specificity and decreasing agreement, as Mac-Farlene and Tuddenham suggest (1951).

4. Test length: As Murstein (1965) indicates, increased length increases reliability only if added items are parallel to previous ones. Beyond a certain point, length may decrease reliability since <u>Ss</u> may seek to vary their responses. A further constraint on test length important here is the limited attention of preschool children, particularly in a sedentary, verbal task. It is not clear to what degree twelve test items, administered on two occasions, maximized test reliability. It does appear, however, that such an arrangement helped to ensure attention and full participation.

5. Verbal fluency: The problem of controlling for verbal fluency is particularly crucial in preschool children, in whom there are often pronounced differences in language acquisition and use. According to Murstein (1965) "Any scoring system which involves counting words connoting a particular need will yield positive relationships between intelligence, verbal fluency, and the trait measured." (p. 201) To control for this, the coding system expressed all scores as relative frequencies.

6. Effect of the <u>E</u>: Since one <u>E</u> collected all data, examiner effects are the same for all <u>S</u>s and do not confound group differences. However, the fact that the E

also coded the protocols undoubtedly means that the coding procedure was influenced by impressions of the <u>S</u>s and the general testing situation. The fact that <u>E</u> coded individual stories without knowledge of their source undoubtedly was important in eliminating possible bias. (The high agreement between the sophisticated <u>E</u> and the naive independent coder is evidence of the effectiveness of the blind scoring technique.)

RESULTS

Table 1 compares mean conflict perception scores for first-born <u>S</u>s with those of later-born <u>S</u>s. (1) <u>T</u>-tests on these scores disclosed no significant differences despite the fact that the scores, particularly on the Womanchild picture (26.95% vs 46.19%), differed substantially. The absence of any significant differences may have been a result of the gross skewness of the distribution of means (typically, one-fourth to one-half of the individual scores on a given picture were zeros, while the remaining scores were fairly high). Therefore, a Mann-Whitney U-test, which involves no assumptions about the distribution of scores, was performed. The results, (given in Table 1), however, indicated no significant differences.

There remained the possibility that the proportion of zero scores among first-born $\underline{S}s$ was significantly different than the proportion of such scores among later-born $\underline{S}s$. Table 2, showing the results of \underline{t} -tests of proportions of zero scores among first-born $\underline{S}s$ as compared with laterborn $\underline{S}s$, also reports no significant findings. A final possibility was that, if zero scores were eliminated, significant differences between first-born and later-born $\underline{S}s$ might appear. At the least, one then could conclude that,
among those $\underline{S}s$ who reported some conflict at all, first-born $\underline{S}s$ reported significantly more (or less) than later-born $\underline{S}s$. Table 3 compares those first-born $\underline{S}s$ with non-zero conflict perception scores with similar later-born $\underline{S}s$. Here, too, there were no significant differences.

Comparison of mean conflict resolution scores for first-born and later-born $\underline{S}s$ was undertaken with a similar sequence of tests. Tables 4, 5, and 6 compare mean aggression, non-aggressive domination, and acquiescence scores on conflict resolution story endings for first-born and laterborn $\underline{S}s$. In the Father-child story, first-born children reported significantly less aggression (Table 3, line 3) and significantly more non-aggressive domination (Table 4, line 3) than did later-born $\underline{S}s$ ($\underline{t}s \geq 2.35$, df=33, .05 > p >.01).** Note that the same pattern appears in the Teacherchild story (Table 3, line 6 and Table 4, line 6), but here differences between first-born and later-born $\underline{S}s$ were not significant ($\underline{t}s \geq 1.25$, df=33, .2 > p >.1).

The most consistent conflict resolution differences between first-born and later-born <u>Ss</u> appear in Table 6 comparing mean acquiescence scores for the two groups. On the average, later-born <u>Ss</u> give fewer acquiescence responses to fantasy conflicts, irrespective of the hypothetical situation,

^{*}Two-tailed tests throughout. The use of twotailed tests, although most predictions were directional, is justified by the exploratory nature of the study. Significant differences in either direction were of interest.

and thus have lower (although not significantly lower) total acquiescence scores ($\underline{t} = 1.77$, df = 33, .1).

As with conflict perception scores, discussed above, the distribution of conflict resolution scores was highly skewed. Therefore, Mann-Whitney U-tests were conducted (listed in Tables 4, 5, and 6). Differences were significant precisely where the t-test of independent means had indicated; i.e., for Father-child aggression and nonaggressive domination scores. Then, t-tests of proportions were carried out to determine whether the proportion of zero conflict resolution scores differed significantly for first-born as compared with later-born children. Tables 7, 8, and 9 compare the proportion of zero aggression, nonaggressive domination, and acquiescence scores for firstborn vs later-born Ss. Where the test could be applied,* it indicated no significant differences between groups in proportion of zero scores, except for aggression responses to the Father-child story (Table 7, line 3). Here, the first-born Ss reported zero scores 84 percent of the time as compared with 38 percent for later-born Ss (z = 2.85, p <.01). Finally, all zero conflict resolution scores were

^{*}The t-test of proportions is applicable only when n_1 times p_1 (or q_1 , whichever is lower) and n_2 times p_2 (or q_2 if lower) are both greater than 5.

eliminated and where feasible,* resulting mean scores for first-born as compared with later-born <u>Ss</u> were compared. Tables 10, 11, and 12 compare mean non-zero scores for aggression, non-aggressive domination, and acquiescence, respectively. No significant differences were found.

Differences between "only" <u>Ss</u> and those having siblings were examined next. Table 13, which compares mean conflict perception scores, shows no significant differences between the groups. Again, highly skewed distributions for both groups indicated that Mann-Whitney U-tests were appropriate. The results of these tests, also given in Table 13, are consistent with those of the <u>t</u>-test of independent means.

Tables 14, 15, and 16 compare mean aggression, nonaggressive domination, and acquiescence scores for "only" <u>S</u>s with those having siblings. Table 14 indicates no significant differences in the use of aggression to resolve fantasy conflicts. Table 15 shows that "only" <u>S</u>s used significantly more non-aggressive domination to resolve the Father-child conflict than did <u>S</u>s with siblings ($\underline{t} = 2.61$, df = 33, p <.01). Differences in domination scores on the other stories were not significant.

^{*}If the number of non-zero scores was less than or equal to 3 for any group, no <u>t</u>-test was done, since a significant result based on so few scores (unlikely in itself) would be hard to interpret, except as an artifact of those scores.

In Table 16, comparing mean acquiescence scores for "only" Ss as compared with Ss having siblings, the latter reported less acquiescence than "only" children in every story except the Teacher-child story. Furthermore, Ss with siblings gave significantly fewer acquiescence responses to the Mother-child and Mother-child-baby stories (\underline{ts})2.25, df = 33, .05 > p > .01). (Results of the Mann-Whitney Utest, also given in Tables 14, 15, and 16 were, on the whole, consistent with those of the t-test of independent means. The U-tests, however, showed no significant differences between "only" Ss and Ss with siblings in Father-child domination, Mother-child acquiescence and Mother-childbaby acquiescence scores.) Finally, all zero conflict resolution scores were eliminated and mean aggression, non-aggressive domination, and acquiescence scores based on the remaining non-zero scores were compared. The results (Tables 17, 18, and 19) indicated no significant differences between "only" Ss and those having siblings.

Several of the predictions tested in the present study were concerned with the difference between scores on the Child-baby and Child-child themes reported by a single group. Thus, "only" <u>S</u>s were expected to perceive conflict in the Child-child and Child-baby pictures similarly, while <u>S</u>s with siblings were expected to discriminate between the two situations. Similar predictions for conflict resolution responses to the Child-child and Child-baby stories were also made. Table 20 compares conflict perception scores on the two pictures for "only" <u>Ss</u> and for <u>Ss</u> with siblings by a "direct-difference" <u>t</u>-test. For example, smong "only" children, each <u>S</u>'s conflict perception score on the Childbaby picture was subtracted from his CP score on the Childchild picture. The <u>t</u>-test was performed on these resulting "direct-differences" for all <u>Ss</u> in the group. The results showed that both "only" <u>Ss</u> and those with siblings discriminated about equally between the two pictures as far as conflict perception is concerned. One should note, however, that for <u>Ss</u> without siblings conflict perception scores on the two pictures correlated +.95 as compared with +.17 for Ss with siblings.

Table 20 also compares conflict resolution responses on the Child-child and Child-baby stories, for "only" <u>S</u>s and <u>S</u>s with siblings. "Only" <u>S</u>s responded with more aggression and non-aggressive domination to the Child-child conflict story, as compared with the Child-baby story ($\underline{ts} \ge 1.63$, df = 8,.2>p>.1). The <u>S</u>s with siblings, on the other hand, gave more acquiescence responses to the Child-child story as compared with the Child-baby story ($\underline{t} = 1.97$, df = 25, .1>p>.05).

This analysis of conflict perception and resolution scores for individual pictures and stories does not preclude the possibility that conflict perception rates might be generally related, for all Ss, to one or more modes of

conflict resolution. As Table 21 indicates, relevant correlation coefficients show that significant relations emerge only when individual picture-story pairs are considered. Specifically, conflict perception is significantly correlated with aggression responses for all <u>S</u>s, on the Child-baby and Man-child picture-story pairs (r = +.56and +.60 respectively).

Another variable presumed to affect scores is the degree of anxiety conflictful situations may arouse in <u>S</u>s. If the link between anxiety and affiliation is as Schachter (1959) describes, different amounts of anxiety aroused by the test procedure would directly affect the contents of a protocol, making acquiescent responses more likely and aggressive responses less likely. As mentioned earlier, responses to two of the conflict perception pictures, the Woman-child and Man-child pictures, formed a rough measure of defensiveness or anxiety aroused by conflict. Failure to report a higher degree of conflict in these two pictures designed to evoke conflict responses, as compared with the remaining four "neutral" pictures, is considered evidence of such anxiety.

Table 22 compares mean conflict perception scores on the two conflict-evoking pictures (combined) with mean scores on the other pictures and indicates that, with one exception, the highest conflict perception scores were, as predicted, on these two pictures. In the Man-woman-child-baby

picture, first-born <u>Ss</u> reported 25.32 percent conflict as compared with 24.58 percent on the conflict-evoking pictures (combined). Although conflict perception scores on the conflict-evoking pictures were not significantly higher than scores on the neutral pictures, the findings indicate that defensiveness was not, in general, a confounding factor in determining results.

One should note, though, that first-born <u>S</u>s reported much less conflict perception (24.58 percent) on the two critical pictures than did later-born <u>S</u>s (41.81 percent) $(\underline{t} = 1.59, df = 33, .2 > p > 1)$. Furthermore, comparison between these conflict perception scores and those on the other, neutral pictures shows that later-born <u>S</u>s perceived significantly less conflict on all the neutral pictures, except the Child-baby one. On the other hand, for firstborn <u>S</u>s, there was no significant difference in conflict perception between the two conflict-evoking pictures (combined) and the remaining neutral ones, except for the Childchild picture ($\underline{t} = 2.10$, df = 18, p = .05).

DISCUSSION

The prediction that first-born boys would be less aggressive than later-born children in parental conflict situations was supported but only in situations involving the father. Since direction of conflict behavior was not scored, the picture emerging from the scores of first-born children on both the Father-child and teacher-child story endings is that of benevolent but firm authority figures who triumph largely by non-aggressive domination and against whom aggression is inappropriate. Later-born Ss, on the other hand, in reporting higher levels of aggression in both cases, perceive aggressive behavior as more permissible, or more common, in such interactions. It is interesting to note that, in the Mother-child story, such differences disappear. In fact, first-born Ss here reported slightly more aggression than later-born children although the difference was not significant. These results support the general prediction that fantasy conflict situations involving different characters would evoke significantly different patterns of conflict resolution, even though no differences in conflict perception may exist. Furthermore, the non-aggressive pattern of response toward the father and teacher figures (see Table 4, lines 3 and 6) supports

Schachter's view that first-born children are less assertive in the face of potentially fearful situations than second or third children. The fact that all Ss expressed most aggression in the Mother-child story probably indicates that, especially for such young children, the mother is not so clearcut or forbidding an authority figure as the father or teacher. Particularly for first-born children, the mother may be a more permissible target for resentments against discipline, sibling rivalry, or other restrictions on behavior. Kagan & Lemkin (1960) and Bandura & Walters (1959) found very similar perceptions of parents. Koch (1960) found that, during direct questioning, first-born children reported more often than second-born children that the mother sided with the sibling in sibling quarrels, while fathers tended to remain neutral. In the present study, individual story analysis of group differences indicates that first-born Ss restrict expressions of aggression in relation to the father, but are slightly more aggressive toward the mother than later-born Ss.

In the Child-baby, Mother-child-baby, and Childchild stories, however, there were no significant differences in conflict resolution between first-born and later-born <u>Ss</u> (see Tables 4, 5, and 6). It appears that first-born children do not also displace aggressive responses from authority situations on to sibling and peer conflicts. Moreover, the consistently higher acquiescence scores of first-born Ss

(see Table 6) support Schachter's view of affiliation as a general personality trait of first-born children. Specifically, Schachter found that first-born children affiliate more, not because of higher levels of anxiety, but because, for them, the link between anxiety and affiliation is stronger than it is in later-born children. The data from the current study suggest that different levels of anxiety may also be a factor. First-born Ss reported less conflict perception than later-born Ss on the two conflictevoking pictures (see Table 22). As mentioned earlier, failure to report higher frequencies of conflict on these two pictures, as compared with the remaining four "neutral" ones, is used here as a measure of anxiety about conflict. If this assumption is warranted, first-born Ss tend to be more anxious about conflict, independent of their responses to it, than do later-born Ss.

Further support for this conclusion is provided by comparing, within each group, conflict perception on the two conflict-evoking pictures with that on the four neutral ones. First-born <u>S</u>s reported slightly more conflict on the "neutral" Man-woman-child-baby picture than on the conflictevoking pictures (combined). Later-born <u>S</u>s, however, reported significantly more conflict on the critical two pictures than on all but one of the remaining "neutral" pictures (see Table 22). Of course, the higher acquiescence scores of first-born Ss on all conflict stories (see Table 6)

also support the hypothesis of an anxiety-affiliation link, illustrated by Schachter's data. While not being wholly situation-specific for first-born children, as has been predicted in the present study, it is definitely intensified when conflict with authority occurs.

While these findings are compared where relevant to those of Schachter, important differences between the two studies should be noted. Schachter tested adult females only, included only paper and pencil projective measures, and measured the affiliative response with peers only.

The predictions made with respect to number of siblings were based on the premise that the assumed experience of most Ss would be reflected in their story endings. Ss with siblings thus would perceive more sibling conflict in "neutral" pictures than would Ss without siblings. The absence of any significant differences in conflict perception on sibling-related pictures for "only" Ss vs those having siblings (see Table 13) may be due to several factors: (1) Ss were free to identify figures as they wished, and some Ss failed to place their stories in an explicitly sibling context, (2) Parental and teacher prohibitions may have made Ss with siblings reluctant to express sibling hostility, (3) Most Ss reported most conflict on the Man-child and Woman-child pictures, the two pictures designed to evoke Since all six pictures were presented on one occasion, it. this may have caused a corresponding decrease in conflict

perception on other pictures, <u>Ss</u> unconsciously "balancing" a conflictful story with a more pleasant or innocuous one, (4) Finally, no obvious relation exists between experience and fantasy material. The <u>Ss</u> may use the opportunity to fantasize, to reflect or deny experience. This does not mean, of course, that when significant group differences in handling fantasy conflict are obtained, such differences are not related to having siblings.

Nonsignificant differences, however, must await further study for interpretation. The general tendency for Ss with siblings to resolve family conflicts with more aggression and less acquiescence (see Tables 14 and 16) than "only" Ss is too small and too inconsistent to warrant any conclusion. The distribution of individual scores accounts for failure to find significant differences in conflict resolution between Ss with siblings and "only" Ss. For example, although the former resolve the Fatherchild conflict with almost twice as much aggression as the latter (13.58 percent compared with 7.44 percent), 15 of the 26 Ss with siblings had scores of zero aggression, while the remaining scores ranged from 18 percent to 55 percent. Similarly, the mean aggression score of the 9 "only" Ss would have been zero without two Ss who reported 17 percent and 50 percent aggression.

Since this type of distribution is characteristic of all the data obtained, one is tempted to conclude that

number of siblings is irrelevant in determining conflict resolution. Such a conclusion is further supported by the fact that the rank-order of scores (see Mann-Whitney Utests in Tables 14 - 16) and proportion of zero scores in each group* do not differ significantly. Even when all zero conflict resolution scores were eliminated, no significant differences emerged other than those already obtained with the <u>t</u>-test of means from two independent samples (see Tables 17 - 19).

Nevertheless, it may be that more <u>Ss</u> are needed or that revisions of test material would elicit affective material from more <u>Ss</u> and reduce the number of zero scores. Given these possibilities, one may speculate that the lower rate of acquiescence among <u>Ss</u> with siblings, particularly pronounced in the Mother-child and Mother-child-baby stories (see Table 16) may reflect perception of the mother's more divided attention, decreasing permissiveness, or role as a focus of sibling rivalry. The fact that acquiescence responses are still lower for <u>Ss</u> with two or more siblings (4 percent), as compared with <u>Ss</u> having only one sibling (5.3 percent), is congruent with such interpretation, but the difference was not significant. Further conflict

^{*}The <u>t</u>-test of proportions could not be applied to comparisons between "only" <u>Ss</u> and <u>Ss</u> with siblings, because in all cases, n_1 times p_1 (or q_1) whichever is smaller and n_2 times p_2 (or q_2) whichever is smaller were not both greater than five.

resolution stories, systematically varying character and situation, are needed. Specifically, the effect of parental and peer characters together, and of the mother in varying conflicts, should be studied.

Related to the lower acquiescence scores in stories involving a mother is the fact that Ss with siblings also reported significantly lower non-aggressive domination scores and higher aggression scores in the Father-child story as well (see Tables 14 and 15). Moreover, when Ss with one sibling were compared with those having two or more siblings, the latter gave significantly more aggressive responses in this story ($\underline{t} = 3.48$, df = 25, p<.01). These findings suggest that as the number of siblings increases from zero to two and three, Ss rely more heavily on physical punishment and verbal aggression to imaginatively end family conflicts, particularly those involving the father. One should note that in Schachter's study (1959) of young adults, those from families of four or more children were markedly less anxious and less affiliative in fearful situations. The present data suggest that, with younger Ss at least, this pattern may also be true of Ss from smaller families. Lastly, to the degree that such stories reflect actual parental behavior (and this study assumes no such relation), Bossard and Boll's work (1956) on the prevalence of physical punishment among large families becomes relevant.

This relation between number of siblings and aggressive conflict resolution suggests that ordinal position and family size interact to produce the affiliative pattern Schachter describes as characteristic of first-born children. Schachter found that first-born children from large families had less anxiety than did those from smaller families. While differential levels of anxiety were determined by family size, the affiliative response to anxiety-producing situations was traced to ordinal position alone.

Because the sample used in the present study included few first-born children with two or more siblings, it was not possible to test the hypothesis that first-born children of such larger families express significantly more fantasy aggression than do first-born children of smaller families in family conflicts, particularly those involving the father. However, Schachter's work and the large difference obtained in the present study between <u>Ss</u> with one as compared with those having two siblings in this regard suggests that this may be the case.

The positive relation between number of siblings and aggressive conflict resolution does not hold, however, when the resolution of sibling conflicts alone are examined. The direction of results confirm the broad prediction that <u>S</u>s with siblings would resolve sibling conflicts more aggressively than "only" <u>S</u>s. However, except for acquiescence responses on the Mother-child-baby story (see Table 16),

differences were not significant. More importantly, <u>S</u>s with two or more siblings reported less aggression than did <u>S</u>s with one sibling on both stories involving siblings, i.e., the Child-baby and Mother-child-baby stories.

The distribution of individual scores follows the same pattern described earlier. Although <u>S</u>s with siblings resolved the Child-baby story with an average of 15.23 percent aggression as compared with 9.22 percent aggression by "only" <u>S</u>s, 17 of the 26 <u>S</u>s with siblings had zero aggression scores, while the remaining scores averaged 44 percent. Similarly, although the scores of all but two of the "only" <u>S</u>s were zero, these two scores of 50 percent and 33 percent raised the group mean considerably.

The results, therefore, do not clarify the relation between family size and fantasy conflict with siblings. They may indicate that as the number of siblings increases, prohibitions against expressing hostility also rise. On the other hand, the type of conflict situation used--that of quarrelling over a toy--may be too particular or trivial to evoke aggressive responses. Research that employs other kinds of sibling conflict is needed. For example, while Koch (1960) listed quarrels over possessions as a major source of sibling friction, she also mentions bossiness, bragging, and responsibility for the younger sibling as major causes of sibling quarrels. In addition, larger samples may affect the typical distribution of scores obtained

in the present study and result in larger group differences with smaller variances. If they do not, the study of other variables more systematically related to conflict perception and resolution is in order.

Turning now to the relation between sibling and peer conflict, a discrimination learning model was assumed to fit better than simple generalization of experience from siblings to peers. As for conflict perception, the high correlation between sibling and peer picture scores for "only" <u>S</u>s and low correlation for <u>S</u>s with siblings provide confirmation for this approach, although one should note that "direct-difference" <u>t</u>-tests failed to yield significant results (see Table 20). In normal children, the tendency to perceive conflict is responsive to socialization pressures and past experience and thus is differentially evoked by changing circumstances.

The results are even less clear when corresponding conflict resolution scores are examined. The prediction that <u>S</u>s without siblings would resolve sibling and peer conflicts similarly, while <u>S</u>s with siblings would discriminate more sharply between the two situations, was not confirmed (see Table 20). While the groups favored different modes of conflict resolution, they applied each rather consistently to both sibling and peer situations. "Only" <u>S</u>s discriminated between sibling and peer situations in their use of aggression and domination, but not in

acquiescence, while the reverse was true of <u>S</u>s with siblings. It may be that "only" <u>S</u>s resolve peer conflicts with much more aggression and domination than they do sibling conflicts simply because they are not involved with the latter. Similarly, one may speculate that <u>S</u>s with siblings use less acquiescence to resolve a conflict between a little boy and a baby, simply because they know that acquiescence is rarely necessary (from the little boy's perspective) in such a situation. Such an analysis, however, makes the unwarranted assumption that, for most children, resolving fantasy conflicts reflects what they have learned from reality. Further research is necessary to give such speculations some basis.

If one contrasts these patterns of conflict resolution with the similar rates of conflict perception for the two groups, one finds again that conflict perception is relatively independent of mode of conflict resolution. Situations perceived as similarly conflictful will not necessarily be resolved in the same manner. By the same token situations unrelated in degree of conflict perception may evoke similar patterns of conflict resolution. An example of the former is the high level of conflict perception reported by first-born children in both the Motherchild and Father-child pictures, with contrasting patterns of conflict resolution to each situation. Similarly, the low correlation of conflict perception responses on the

Child-child and child-baby pictures for $\underline{S}s$ with siblings did not preclude a correlation of over +.64 between domination responses to the corresponding conflict resolution stories.

In summary, the results confirm the importance of situational factors in determining conflict perception and resolution responses. While supporting Schachter's findings that first-born children tend to resolve conflict less aggressively and more affiliatively than do later-born children, the data also illustrate the independence of such behavior from conflict perception and the importance of authority figures in exacerbating this tendency. The fact that "only" Ss perceived conflict between siblings and peers similarly, while Ss with siblings did not, was taken as support for Bandura and Walters' discrimination learning approach. Parallel differences in conflict resolution were not found. Both groups discriminated between peer and sibling situations, but along different dimensions, "only" Ss more aggressive and dominating toward peers than toward siblings, Ss with siblings more acquiescent toward peers than toward siblings. Finally, as number of siblings increases, expressions of hostility increase in fantasy conflicts with parents, but decrease in conflicts with siblings. Possible relations to parental discipline and prohibitions concerning sibling conflict were suggested for further investigation.

The limitations of this study should be made explicit. The above findings are restricted to projective or fantasy material collected on only two occasions, of middle class boys. They bear no necessary relation to actual behavior or family conditions. In discussing group differences based on ordinal position, a possible confounding variable is mother's age, since later-born Ss would have older mothers than first-born children. Even if mother's age is controlled, the difference between mother's age at marriage and at the birth of her first child is not. This difference, directly affecting attitudes toward the child and the quality of socialization he experiences, may be of more importance than mother's age alone.

Because of limited language facility in small children, often only enumeration or simple description of pictures is possible (Altman, 1960). The two projective measures used here encountered this problem and further testing and adaptation of the measures are necessary. Furthermore, even when the frequency of affective responses is rather high, one cannot maintain that this reflects underlying and enduring characteristics of the <u>S</u>s tested. As Sigel (1960) points out, a story may contain material of symbolic significance or, just as likely, a reconstruction of yesterday's events. The problem of determining level of fantasy and its significance means that projective measures

alone cannot, even roughly, differentiate individuals. But if only group differences are examined, without assuming that projective material is either reconstructive or symbolic, comparisons between groups are justified (Fiske, 1965).

Even this limited usefulness of projective techniques does not preclude the possibility that direct questioning or observation of ongoing behavior would be just as appropriate. For the present study, observation of nursery school behavior could not shed light on reactions to other situations and characters. Furthermore, the emphasis of the present study on <u>perceived</u> conflict made necessary some independent measure of the child's attitudes and beliefs.

Projective techniques are often justified on the grounds that direct questioning about aggression and family conflict is too sensitive and, therefore, evokes primarily defensive responses. However, Koch's study (1960) as well as other studies of preschool children (Rabin & Haworth, 1960) suggest that their defenses are sufficiently weak to allow fruitful direct questioning. Of course, in such young children, the problem of interpreting responses to direct questions is almost as complex as those connected with projective material. Nonetheless, the use of direct questioning remains an important alternative investigating tool and should be systematically compared with parallel projective measures.

The present study restricted itself to projective measures primarily because, in pretest observation of <u>S</u>s, teachers appeared to emphasize the suppression of unsatisfactory behavior, particularly aggression toward peers and adults. The impression was that while preschoolers may be less inhibited about expressing socially unacceptable behavior, they are, at the same time, more intensely subject to socialization pressures than are older children and adults.

However, even assuming that the sole use of projective measures is justified, the absence of established reliabilities or validities renders them questionable. As discussed earlier, care was taken to maximize reliability. As for validity, the same assumptions were made as Blum (1949) used in defense of his Blacky test. Significant results not obtained by chance or from test artifacts are measuring <u>something</u>. These results and, by inference, the test upon which they are based can legitimately be taken as casting doubt or lending support to relevant theories.

Finally, one should make clear the relation between the fantasy material obtained here, antecedent variables, and predicted overt behavior. Although no attempt was made to predict behavior, it should be noted that studies of predictive validity indicate rather low correlations between hostile projective test content of the TAT type and overt hostility (Sigel, 1960). In fact, significant negative

correlations have been found (Feshback, 1955; Sanford, <u>et al</u>., 1943). More importantly, both Bandura and Walters (1959) and Lesser (1965) have shown that under conditions of parental encouragement of aggression the correspondence between fantasy and overt aggression improves. Thus, the relation between fantasy and overt aggression is determined by the complex interaction of many background variables.

Nevertheless, the predictive validity of a projective test measuring fantasy aggression can be increased by increasing speicificit of situation, as in mother-child punishment, teacher-child interaction, etc. Since the story completion measure used here is of this type, it is reasonable to assume that its predictive validity is higher than the TAT-type measure, perhaps high enough for use in predicting situation-specific behaviors.

The main focus of the research, however, was in relating fantasy material involving conflict to ordinal position and sibling status. The results indicated that such relations are largely situation-specific and reflect rather differentiated patterns of fantasy conflict. First-born <u>Ss</u> tend to resolve conflicts with authority figures such as fathers and teachers by acquiescence, while later-born <u>Ss</u> show considerably more aggression in such situations. Ordinal position effects were restricted to such authority situations; the groups did not differ in frequency of conflict perception or in their handling of other fantasy

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conflicts. Similarly, children having siblings were significantly less acquiescent in their resolution involving the mother and siblings in comparison both to their own responses to other situations and to the responses of the "only" children, yet did not differ from "only" children in handling peer conflict, teacher conflict, or, in most cases,* father-conflict.

The stability and symbolic significance of such patterns remain in question. The study merely derives such relations as fruitful hypotheses linking fantasy conflict with overt behavior under specific conditions.

A number of suggestions for further research have been alluded to above, and may be summarized here. First, the whole notion of spontaneous conflict perception in "neutral" drawings needs further investigation. The drawings employed in this study contained plain silhouette figures with a minimum of structure. To what degree would added detail, and clear identification of characters affect conflict perception? If one wishes to test the situationspecificity of conflict perception (as the current study did), drawings more clearly identifying and contrasting situations should improve the resulting data and make more natural comparisons with conflict resolution stories possible. For example, more structured projective material

^{*}Ss with siblings reported significantly less nonaggressive domination in the Father-child story than did "only" Ss ($\underline{t} = 2.61$, df = 33 p<.01).

10 ÷ 5 Ĵ 3 X (:--A) Cr may show the hypothesized difference in conflict perception between "only" <u>Ss</u> and those with siblings so far as sibling and peer situations are concerned.

Secondly, our findings concerning differences in conflict resolution patterns for first-born vs later-born children merits additional research. The need for including subjects from larger families (four and more children) was previously discussed. In addition both the current study, based on preschoolers, and Schachter's work on adult females leave untouched the development of ordinal position effects, although Sutton-Smith & Rosenberg (1965) have done some work in this direction. They found a more marked ordinal position effect at age 6 than at age 10 or 20 on a measure of anxiety over sex-role identification. Based on the data reported in the present study, one might ask whether anxiety about authority figures follows the same course, whether such figures change identification, and whether patterns of responses to them change as well. For example, the current study depicted preschoolers in general and first-born children in particular as more fearful and less assertive with the father than with the mother, against whom aggression was more permissible. Bandura and Walters' (1959) work with adolescents suggests that such a pattern is important later in determining anti-social aggression. All this suggests a study comparing over time the child's changing conception of his parents as authority figures

<u>ar</u>. ŝ Π, 1 and his changing response repertoire in dealing with them.

The comparisons between "only" <u>Ss</u> and those with siblings suggested that the latter use more fantasy aggression and less fantasy acquiescence in resolving conflicts involving parents. Since this difference increased slightly with family size, one might investigate the relation between amount of time and kind of activity a child reports spending with his parents, the punishment techniques he reports, and the conflict resolution responses. It would be interesting to compare the results of such direct questioning with family interviews and observation to determine which (if either) is systematically related to the handling of fantasy conflict.

Comparison of handling of sibling and peer conflicts within a group disclosed that "only" <u>S</u>s used more aggression and domination in resolving peer conflicts, as compared with sibling conflicts. By contrast, <u>S</u>s with siblings reported almost equal levels of aggression and domination, but twice as much acquiescence toward peers than toward siblings in a fantasy conflict. This latter finding suggests that children with siblings have learned that the heavy-handed approach is often doomed to failure. If so, older children should be less susceptible to defeat by peers and so more like "only" children in their behavior. On the other hand, since fighting with children is more of a problem

for parents of several children than for those with just one, the above findings may reflect the canny understanding of a child with siblings that adults frown on beating up another kid, even figuratively. This hypothesis could be tested easily by comparing the perceptions of "only" children to those with siblings concerning sibling vs peer quarrels. A similar comparison of parents' reactions to such quarrels may help to decide the degree to which children are influenced by parental prohibitions, on the one hand, and their own experiences of victories and defeat, on the other.

Other obvious areas for investigation include the relation between fantasy conflict and overt behavior. on the one hand, and between such material and other antecedent variables, on the other. Koch (1960) found sex of subject and sex of sibling as well as age spacing between sibling all important determinants of sibling quarrels. We suggested above, that both mother's age and the time span between marriage and birth of the first child may also have important effects on child-rearing. Other possibilities are age of father, age difference between parents, and parental disagreement about child-rearing. A final area of investigation, one which has received most emphasis here, relates fantasy conflict to other variables dealing with the child's perception of his world. For example, does the actual age difference between parents affect fantasy conflict, or does the age difference as perceived by the child? Perhaps

neither does, but asking the second sort of question leads the investigator to more fundamental questions about the child: What information is available to him? How does he make sense of it and how much does he want to? To what degree does conflict "make sense" out of a child's perceptions of the world about it? To what degree does it reflect reality? From answers to such questions one can then construct some measure of what an effective resolution to conflict might be for a given child.

Conflict Perception Scores for First-Born

vs Later-Born Ss.*

Picture	First-Born <u>S</u> s (n = 19)	Later-Born <u>S</u> s (n=16)	t value	р	Mann- Whitney U	<u>π</u> σ	p
Child- Baby	16.11%** (SD=27.03)	25.13% (SD=34.75)	t<1		163.5	<1	
Child- Child	7•37% (SD=21•73)	14.63% (SD=22.02)	t <l< td=""><td></td><td>196.5</td><td>1.47</td><td>.2>p>.1</td></l<>		196.5	1.47	.2>p>.1
Man- Child	22.21% (SD=27.02)	37•38% (SD=42•41)	t=1.24 .	3>p >. 2	181.5	<1	
Woman- Child	26.95% (SD=32.08)	46.19% (SD=39.85)	t=1.54 .	2 > p . 1	109.	1.42	.2p.1
Woman- Child- Baby	20.21% (SD=25.15)	12.31% (SD=20.35)	t <1		126.5	<1	
Man- Woman- Child- Baby	25.32% (SD=33.11)	17.00% (SD=28.34)	t⊲		137.5	<1	
Total Score	19.69% (SD=16.61)	25.32% (SD=21.78)	t<1		132.	<1	

*Later-born <u>Ss</u> include 10 second-born, 4 third born, and 2 fourth-born children.

**Each percent score represents average relative frequency of conflict statements for a given picture.

Proportion of Zero Scores on Conflict

Perception (CP) Pictures for First-

born $\underline{S}s$ as Compared with

Picture	First-born <u>S</u> s (n=19) Proportion of zero CP scores	Later-born <u>S</u> s (n=16) Proportion of zero CP scores	z Score	р
Child-Baby	•63	.63	.039	
Child-Child	•89	•56		np < 5*
Man-Child	•58	•50	•467	
Woman-Child	•47	•31	•969	
Woman-Child- Baby	•53	.63	•589	
Man-Woman- Child-Baby	•53	•56	.214	

Later-born Ss.

*The t-test of proportions can be applied only if n_1 min (p_1q_1) and n_2 min (p_2q_2) are both >5.

First-born Ss vs Later-born Ss.

Picture	First-born <u>S</u> s Mean CP score (non-zero scores only)	Later-born <u>S</u> s Mean CP score (non-zero scores only)	t value	p
Child- Baby	43.71% var=776.78 n=7	67.% var=414.67 n=6	1.56 (df=11)	·2>p>1
Child- Child	n=2*			
Man- Child	52.75% var=123.19 n=8	74.75% var=804.19 n=8	1.91 (df=14)	·1>p>05
Woman- Child	51.2% var= n=10	67.18% var= n=11	1.22 (df=19)	·3>p>2
Woman- Child- Baby	42.66% var=377.33 n=9	32.83% var=430.14 n=6	<1 (df=13)	
Man- Woman- Child- Baby	53.44% var=810.47 n=9	38.86% var=985.84 n=7	<1 (df=14)	

*If one or more of the resulting n's (after zero CP scores eliminated) were ≤ 3 , the <u>t</u>-test was not done, since significant results with so few subjects would be difficult to interpret.

Non-zero Conflict Perception Scores for

Mean Aggression Scores in Conflict Resolution

Story Endings for First-born Ss

vs Later-born Ss.

Story	First-Born <u>S</u> s (n=19)	Later-Born <u>S</u> s (n=16)	t value	р	Mann- Whitney U	x σ p
Child- Baby	12.05% (SD=19.82)	15.63% (SD=24.06)	<1		122.5	<1
Child- Child	14.78% (SD=18.93)	18.81% (SD-25.72)	<1		150.	<1
Father- Child	5.53% (SD=13.87)	19.69% (SD=18.1)	t=2.54	p<05, ≻01	222.	2.32 p=.05
Mother- Child	27.47% (SD=28.97)	25.31% (SD=21.77)	<1		150.5	<1
Mother- Child- Baby	21.00% (SD=29.88)	22.81% (SD=27.46)	<1		161.	<1
Teacher- Child	6.47% (SD=13.75)	21.38% (35.16)	1.66	p < .01, > ∙ ⁰⁵	181.5	<1
Total Score	14.19% (SD=14.04)	20.71% (SD=13.94)	<1			

Mean Non-Aggressive Domination Scores in Conflict Resolution Story Endings for First-born <u>S</u>s vs Later-born <u>S</u>s.

Story	First-Born <u>S</u> s (n=19)	Later-Born <u>S</u> s (n=16)	t value	р	Mann- Whitney U value	<u>π</u>	р
Child- Baby	25.95% (SD=28.)	19.75% (SD=27.95)	<1		126.	<1	
Child- Child	33.42% (SD=26.65)	26.00% (SD-22.81)	<1		128.5	<ı	
Father- Child	10.37% (SD=14.36)	1.44% (SD-3.84)	2.35	p<05; >∙025	101.	1.69	p<.2; >∙1
Mother- Child	25.63% (SD=21.38)	22.75% (SD-21.37)	<1		168.	<1	
Mother- Child- Baby	22.58% (SD=22.57)	19.88% (SD=25.74)	<1		139.	<1	
Teacher- Child	41.26% (28.22)	28.50% (SD=30.19)	1.25	p<.3; >∙2	112.5	1.31	p<.2; ▶1
Total Score	26.25% (SD=10.65)	20.10% (SD=11.54)	1.59	₽<.2; >.1			
Mean Acquiescence Scores in Conflict Resolution

Story Endings for First-born \underline{Ss} as

Compared with Later-born Ss.

Story	First-Born <u>S</u> s (n=19)	Later-Born <u>S</u> s (n=16)	t value	р	Mann- Whitney U Value	<u>x</u> σ	р
Child - Baby	10.53% (SD=19.32)	9.94% (SD=17.06)	<1		151.5	<1	
Child- Child	21.68% (SD=21.75)	13.13% (SD=16.1)	1.26	p<.3; >2	119.	1.09	p <. 3; >²
Father- Child	8.00% (SD=11.12)	3.88% (SD=9.33)	1.14	p<.3; }•²	122.	<1	
Mother- Child	11.42% (SD=20.19)	4.56% (SD=9.86)	1.20	p<.3; >²	179.5	<1	
Mother- Child- Baby	14.05% (SD=24.64)	3.94% (SD=12.3)	1.45	p<.2; >.1	113.5	1.28	p=.2
Teacher- Child	-20.16% (SD=27.26)	14.63% (SD=22.1)	<1		128.	<1	
Total Score	15.16% (SD=10.4)	9.25% (SD=8.43)	1.77	p<1; >05			

Proportion of Zero Aggression Scores for

First-born Ss as Compared with

Story	First-born <u>S</u> s (n=19)	Later-born <u>S</u> s (n=16)	z Score	р
Child-Baby	•68	•69	.02	
Child-Child	•53	•56	.21	
Father-Child	•84	• 38	2.85	p <. 01
Mother-Child	• 37	• 38	• 04	
Mother-Child- Baby	•58	•50	•47	
Teacher-Child	•79	.63		np <5*

Later-born Ss.

*The <u>t</u>-test of proportions can be applied only if n_1 min (p_1q_1) and also n_2 min $(p_2q_2) > 5$.

Proportion of Zero Non-Aggressive Domination Scores for First-born <u>S</u>s vs Later-born <u>S</u>s.

Story	First-born <u>S</u> s (n-19)	Later-born <u>S</u> s (n=16)	z Score	р
Child-Baby	•37	•56	1.15	•2>p>•3
Child-Child	.26	•31		np<5*
Father-Child	• 58	.88		11 11
Mother-Child	• 32	•31	.02	
Mother-Child- Baby	•37	•50	•79	
Teacher-Child	.21	• 38		np<5

*The <u>t</u>-test of proportions can be applies only if n_1 min (p_1q_1) and also n_2 min (p_2q_2) are both >5.

Proportion of Zero Acquiescence Scores for First-born <u>S</u>s vs Later-born <u>S</u>s.

Story	First-born <u>S</u> s (n=19)	Later-born <u>S</u> s (n=16)	z Score	p
Child-Baby	.68	.69	.02	
Child-Child	• 37	•56	1.15	•3>p>.2
Father-Child	•63	.81		np<5*
Mother-Child	•63	.81		11 11
Mother- C hild- Baby	•63	•88		11 17
Teacher-Child	•42	•63	1.20	•3>p>•2

*The <u>t</u>-test of proportions can be applied only if n_1 min (p_1q_1) and also n_2 min (p_2q_2) are both >5.

Mean Non-Zero Aggression Scores for

First-born <u>S</u>s vs Later-born <u>S</u>s.

Story	First-born <u>S</u> s Mean Aggression (non-zero scores only)	Later-born <u>S</u> s Mean Aggression (non-zero scores only)	t value	p
Child- Baby	38.17% var=247.14 n=6	50.% var=133.2 n=5	1.27 (df=9)	·3≫p>2
Child- Child	31.22% var=243.73 n=9	43.% var=472.29 n=7	1.18 (df=14)	•3>p>-2
Father- Child	n=3*			
Mother- Child	43.5% var=631.25 n=12	40.5% var=143.05 n=10	<1 (df=20)	
Mother- Child- Baby	35.75% var=677.11 n=8	39.75% var=467.48 n=8	<1 (df=14)	
Teacher- Child	30.75% var=151.69 n=4	57.% var=1266.67 n=6	1.27 (df=8)	·3>p>.2

*If one or more of the resulting n's (after non-zero aggression scores are eliminated) were ≤ 3 , the <u>t</u>-test was not done, since significant results with so few subjects would be difficult to interpret.

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Mean Non-Zero Non-Aggressive Domination Scores

for First-born <u>S</u>s vs Later-born <u>S</u>s.

Story	First-born <u>S</u> s Mean Dom. Scores (non-zero scores only)	Later-born <u>S</u> s Mean Dom. Scores (non-zero scores only)	t value	р
Child- Child	45.36% var=422.66 n=14	37.82% var=309.97 n=11	<1 (df=23)	
Child- Baby	41.08% var=619.58 n=12	45.14% var=639.27 n=7	(df=17)	
Father- Child		n=2*		
Mother- Child	37.46% var=224.71 n=13	33.09% var=322.08 n=11	(df=22)	
Mother- Child- Baby	35•75% var=335•35 n=12	39•75% var=534•94 n=8	<1 (df=18)	
Teacher- Child	52.27% var=433.26 n=15	45.6% var=678.64 n=10	(df=23)	

*If one or more of the resulting n's (after non-zero nonaggressive domination scores have been eliminated were ≤ 3 , the <u>t</u>-test was not done, because it was felt that significant results would be difficult to interpret, with so few <u>S</u>s in the sample.

Mean Non-Zero Acquiescence Scores for

Story	First-born <u>S</u> s Mean Acq. (non-zero scores only)	Later-born <u>S</u> s Mean Acq. (non-zero scores only)	t value	р
Child- Baby	33.33% var=421.89 n=6	31.8% var=235.76 n=5	<1 (df=9)	
Child- Child	34.33% var=314.56 n=12	30.% var=86.29 n=7	<1 (df=17)	
Father- Child		n=3*		
Mother- Child	43.5% var=631.25 n=12	40.5% var=143.05 n=10	<1 (df=20)	
Mother- Child- Baby		n=2		
Teacher- Child	34.82% var=773.24 n=11	39.% var=352. n=6	(df=17)	

First-born Ss vs Later-born Ss.

*If one or more of the resulting n's (after non-zero acquiescence scores have been eliminated) were ≤ 3 , the <u>t</u>-test was not done, since with so few subjects, a significant result would be difficult to interpret.

Mean Conflict Perception Scores for "Only"

Picture	0 Siblings (n=9)	One or more Siblings (n=26)	t value	р	Mann- Whitney U	<u>π</u>	p
Child- Baby	14.56% (SD=31.72)	22.19% (SD=30.68)	<1		138.5	<1	
Child- Child	6.67% (SD=18.84)	13.54% (SD=23.42)	<1		142.	<1	
Man- Child	29.22% (SD=27.59)	29.12% (SD=38.13)	<1		112.5	<1	
Woman- Child	32.78% (SD=31.44)	36.76% (SD=38.82)	<1		118.	<1	
Woman- Child- Baby	18.44% (SD=29.22)	15.96% (SD=20.69)	<1		122.5	<1	
Man- Woman- Child- Baby	12.22% (21.11)	24.73% (SD=33.52)	1.02 .	3>p>2	2 141.	<1	
Total Score	24.41% (SD=17.37)	28.97% (SD=17.66)	<1				

Ss vs Ss with Siblings.*

*Ss with siblings include 16 with only one sibling, 8 with 2 siblings, and 2 with 3 siblings. Of the 26 Ss with siblings, 10 are first-born, while 16 are second-born or younger.

Mean Aggression Scores for "Only"

Story	0 Siblings (n=9)	One or more Siblings (n=26)	t value	р	Mann- Whitney U	<u>_x</u> σ	р
Child- Baby	9.22% (SD=17.71)	15.23% (SD=23.01)	<1		132.	<1	
Child- Child	19.33% (SD=21.64)	15.69% (SD=22.56)	<1		103.5	<1	
Father- Child	7.44% (SD=15.95)	13.58% (SD=17.65)	<1		142.	<1	
Mother- Child	17.80% (SD=23.72)	25.70% (26.93)	<1		145.5	1.08	₽ € •3
Mother- Child- Baby	16.67% (SD=20.41)	23.62% (SD=30.98)	<1		127.	<1	
Teacher Child	- 7.78% (SD=16.18)	15.19% (SD=29.47)	<1		128.5	<1	
Total Score	14.88% (SD=8.62)	28.99% (SD=15.32)	<1				

Ss vs Ss with siblings.*

*<u>S</u>s with siblings include 16 with one sibling only, 8 with 2 siblings, and 2 with 3 siblings.

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Mean Non-Aggressive Domination Scores for

Story	O Siblings (n=9)	One or more Siblings (n=26)	t value	р	Mann- Whitney U	<u>_x</u> σ	р
Child - Baby	15.33% (SD=23.97)	25.81% (SD=28.97)	<1		140.5	\triangleleft	
Child- Child	33.11% (SD=23.41)	28.96% (SD=25.76)	<1		106.5	\triangleleft	
Father- Child	14.56% (SD=15.89)	3.42% (SD=8.19)	2.61	p<∙01	69.5	1.79	
Mother- Child	26.00% (SD=20.52)	23.7% (SD=22.49)	=1		106	<1	
Mother- Child- Baby	11.44% (SD=16.13)	24.77% (SD=25.43)	1.43	p<.2; >1	150.	1.25	
Teacher- Child	-41.22% (SD=25.00)	33.42% (SD=31.06)	<1		97.5	<1	
Total Score	14.88% (SD=8.42)	20.31% (SD=10.78)	<1				

"Only" Ss vs Ss with Siblings.*

*<u>S</u>s with siblings include 16 with one sibling only, 8 with two siblings, and 2 with 3 siblings.

Mean Acquiescence Scores for "Only"

Story	0 Siblings (n=9)	One or more Siblings (n=26)	t value	p	Mann- Whitney U	<u>x</u> σ	p
Child- Baby	14.89% (SD=23.63)	8.65% (SD=15.77)	<1		97.5	<1	
Child- Child	20.11% (SD=23.14)	16.96% (SD=18.49)	<1		113.	<1	
Father- Child	9.0% (SD=10.28)	5.11% (SD=10.45)	<1		91.5	<1	
Mother- Child	18.3% (SD=26.79)	4.8% (SD=10.44)	2.25 p >	, 05; 025	74.	1.62	p <. 2; →.1
Mother- Child- Baby	22.22% (SD=32.16)	5.00% (SD=11.69)	2.26 p<	. 05;	82.	1.32	p<.2; >.1
Teacher- Child	-16.11% (SD=22.86)	18.88% (SD=26.18)	<1		115.	<1	
Total Score	16.77% (SD=11.62)	13.59) (SD=7.93)	$<^1$				

Ss vs Ss with siblings.*

*Ss with siblings include 16 with one sibling only, 8 with two and 2 with three siblings.

Mean Non-Zero Aggression Scores for

"Only" Ss vs Ss with Siblings.

Story	O Siblings (non-zero score mean)	One or more Siblings (non-zero score mean)	t	р
Child - Baby	n=2*			
Child- Child	34.8% var=304.56 n=5	37.09% var=409.54 n=11	<1 (df=14)	
Father- Child	n=2			
Mother- Child	40.% var=237. n=4	42.61% (449.02) n=18	<1 (df=20)	
Mother- Child- Baby	37•5% var=156•25 n=4	51.17% var=670.31 n=12	<1 (df=14)	
Teacher- Child	n=2			

*If one or more of the resulting n's (after zero aggression scores have been eliminated) were 3, no <u>t</u>-test was done, since it was felt that a significant result obtained with so few subjects would be difficult to interpret.

Mean Non-zero Non-Aggressive Domination Scores

for "only" Ss vs Ss with Siblings.

Story	O Siblings (mean of non- zero scores only)	One or more Siblings (mean of non- zero scores)	t value	р
Child- Baby	34.5% var=631.25 n=4	44.73% var=608.46 n=15	<1 (df=17)	
Child- Child	42.57% var=301.96 n=7	41.83% var=420.83 n=18	(df=23)	
Father- Child	26.2% var=149.76 n=5	17.8% var=92.56 n=5	1.08 (df=8)	p > ∙2
Mother- Child	33.43% var=232.54 n=7	36.29% var=288.79 n=17	(df=22)	
Mother- Child-	25.75% var=216.69 n=4	40.25% var=427.56 n=16	1.26 (df=18)	p >∙ 2
Teacher- Child	46.38% var=464.48 n=8	51.12% var=571.39 n=17	<1 (df=23)	

Mean Non-Zero Acquiescence Scores for

"Only $\underline{S}s$ vs $\underline{S}s$ with Siblings.

Story	O Siblings (Mean of non-zero Scores only)	One or more Siblings (Mean of non-zero scores only)	t value	р
Child- Baby	33.5% var=632.75 n=4	32.14% var=168.69 n=7	<1 (df=9)	
Child- Child	36.2% var=381.38 n=5	31.5% var=176.68 n=14	<1 (df=17)	
Father- Child	20.25% var=10.19 n=4	22.16% var=94.81 n=6	<1 (df=8)	
Mother- Child	33.% var=665.6 n=5	25.% var=42.8 n=5	<1 (df=8)	
Mother- Child- Baby	50.% var=937.5 n=4	26.% var=165.6 n=5	1.40 (df=7)	p >•2
Teacher- Child	29.% var=566.8 n=5	39.33% var=622.89 n=12	<1 (df=15)	

Comparison between Conflict Perception on the Child-Child and Child-Baby pictures and between Conflict Resolution on the Child-Child and Child-Baby stories for "Only" <u>Ss</u> and Ss with Siblings.^a

Group	Mean Score on Child- Baby Theme	Mean Score on Child- Child Theme	t	df	р
"Only" Ss (n=9)					
Conflict Perception	14.56%	6.67%	1.49	8	·2>2>1
Aggression	9.22%	19.33%	1.94	8	·1)2>05
Domination	15.33%	33.11%	1.63	8	₽ >. 1
Acquiescence	14.89%	20.11%	<1	8	
<u>S</u> s with siblings (n=26)					
Conflict P erception	22.19%	13.54%	1.23	25	p .1
Aggression	15.23%	15.69%	<1	25	
Domination	25.81%	28.96%	<1	25	
Acquiescence	8.65%	16.96%	1.97	25	•) p>05

^aNote: The <u>t</u>-tests are "direct-difference" tests. For example, among "only" children, each <u>S</u>'s score for conflict perception on the Child-Baby picture was subtracted from his CP score on the Child-Child picture. The <u>t</u>-test is of these resulting "direct-differences" for all <u>Ss</u> in the group. The score of 14.56% represents the average <u>CP</u> score for the 9 "only" Ss on the Child-Baby picture.

Correlation Coefficients between Conflict Perception

and Conflict Resolution Scores for all \underline{Ss} .

Picture-Story Pair		Scores		Correl.	Coeff.
All		CP x	Aggression	+.269	
All		CP x	Domination	054	
All		CP x	Acquiescence	076	
Woman-Child;	Mother-Child	CP x	Ag.	+.179	
n	11	СР х	Dom.	+.037	
11	11	СР ж	Acq.	136	
Child-Child;	Child-Child	CP x	Ag.	022	
11	**	CP x	Dom.	024	
ft	*1	CP x	Acq.	191	
Woman-Child-Baby;		CP x	Ag.	326	
10 cher = 0111. 11	IU-DADy "	CP x	Dom.	+.129	
*1	**	CP x	Acq.	+.026	
Child-Baby; (Child-Baby	CP x	Ag.	+. 559	(z=3.26)
"	11	CP x	Dom.	+.093	
"	11	CP x	Acq.	+.216	
Man-Child; Father-Child		CP x	Ag.	+. 601	(z=3.50)
11	"	CP x	Dom.	245	
11	"	CP x	Acq.	+.117	

Comparison between Man-Child and Woman-Child Conflict Perception Scores (combined) and other Conflict Perception Pictures

Group	Mean of Man- Child and Woman-Child CP Scores	Child- Child CP	Child- Baby CP	Woman- Child- Baby CP	Man Woman- Child- Baby CP
"Only" <u>S</u> s (n=9)	31.0%	6.77% t=2.09 df=8 p>.05	14.56% t=1.24 df=8 p>.2	18.44% t=1.15 df=8 p>.2	12.22% t=1.69 df=8 P>.05
<u>S</u> s with sibs. (n=26)	32.94%	13.54% <u>t</u> =2.88 df=25 <u>p</u> <.01	22.19% t=1.59 df=25 p>.1	15.96% <u>t</u> =2.49 df=25 p=.05	24.73% <u>t</u> 1 df=25
First-born <u>S</u> s (n=19)	24.58%	7.37% <u>t</u> =2.10 df=18 <u>p</u> =.05	16.11% <u>t</u> <1 df=18	20.21% <u>t</u> <1 df=18	25.32% <u>t</u> <1 df=18
Later-born <u>S</u> s (n=16)	41.81%	14.63% <u>t</u> =2.99 df=15 <u>P</u> <.01	25.13% t=1.77 df=15 p>.05	12.31% <u>t</u> =2.94 df=15 p<.01	17.00% <u>t</u> =3.29 <u>d</u> f=15 <u>p</u> <.01

for all groups.

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APPENDIX

The following are trace copies of the six conflict perception pictures used in the present study. They differ from the originals in two respects:

- 1. The originals were on hard cardboard.
- 2. The figures were solidly blacked-in with ink, rather than roughly shaded.

Child-Baby Conflict Perception Picture









5/19/49

