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aspect of the sibling relationship**

Buchwalter, Juliet Anne, Ph.D.

City University of New York, 1988

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YOUNGER SISTERS OF AGGRESSIVE OLDER BROTHERS:  
A STUDY OF ONE ASPECT OF THE SIBLING RELATIONSHIP

by

JULIET A. BUCHWALTER

A dissertation submitted to the Graduate Faculty in  
Psychology in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy, The City  
University of New York.

1988


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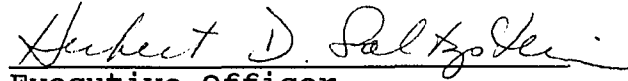
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## Abstract

### YOUNGER SISTERS OF AGGRESSIVE OLDER BROTHERS: A STUDY OF ONE ASPECT OF THE SIBLING RELATIONSHIP

by

Juliet A. Buchwalter

Advisor: Professor Steven Tuber

The study explores the impact of aggressive adolescent boys on the development of internal object representations in their younger, latency-aged sisters. Twenty-four brother and sister pairs were studied. The total sample was divided into two groups based upon the degree of aggressive behavior shown by brothers as determined by mother's ratings on the Achenbach Child Behavior Checklist. The Rorschach Inkblot Test was used to assess the level of internal object representation in the sisters. It was hypothesized that sisters of the relatively more aggressive older brothers would produce more malevolent or toxic object representational scores on the Rorschach as measured by the Urist Mutuality of Autonomy Scale and that their Rorschach protocols would also be characterized by significantly more constriction than those of the sisters of less aggressive brothers.

The primary hypotheses were not supported by the analysis of the present data. Limitations which may have precluded confirmation of the hypotheses include:

- a) A lack of objective ratings in the determination of

aggressive behavior in the brothers which could have prevented the two groups from being sufficiently different, and b) too wide an age difference in the brother and sister pairs in the overall sample. Results yielded secondary significant findings: sisters of the reportedly more aggressive brothers were found to produce significantly more total responses per protocol as well as more M- scores on the Rorschach. The M- finding led to speculation that these girls may experience more disturbance in self-representation than in the level of their internal object representations.

The limitations in the study restrict the generalizability of the findings and render the meaning of the results inconclusive. Future research in this area of study must account for these limitations and alter certain aspects of the construction of the experiment if more definitive conclusions are to be drawn.

## ACKNOWLEDGEMENTS

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My dissertation committee has been tremendously helpful, generous and encouraging throughout the process. I thank Dr. Bruce Grellong who agreed to take time out of a busy schedule in order to serve as an outside reader. In addition, Bruce's support of this work in its early stages and his assistance in finding a viable population helped to move me from the stage of ideas to the more practical and concrete reality of actually having subjects to interview. Many thanks to

Dr. Anni Bergman who found time to be one of my outside readers. Anni's significance in my professional development is great in that she strongly encouraged my early steps into the field of psychology and has been supportive all along the way. Her gentle, tolerant style with children, her curiosity about them, and her convictions about their needs and capacities have strongly influenced my own work with children and I am grateful for her many lessons. I thank Dr. Louis Gerstman for being on my committee and for his cheerful and persistent assistance with the data analysis. His long hours with me at the computer much facilitated my completing this study. My thanks to Dr. Laurence Gould for not only taking the time to be on my committee but also, for his many forms of assistance and encouragement throughout my graduate training. Finally, it is difficult to imagine how this study would have been possible without the help of my chairman, Dr. Steven Tuber, whose supervision and consistent support in the beginning, middle and end stages of this project, and at all points in between, were so generous and often well beyond the call of duty. I deeply appreciate and thank him for his enthusiastic encouragement of both my ideas and my questions. His willingness to teach me about research and to share his ideas about clinical material was invaluable. The fact that I learned so much about

both research and psychology in the writing of this dissertation is a direct result of Steve's work with me, his conviction that the study was possible, and his friendship.

Given the rather specific age requirements of the sibling pairs studied, recruiting subjects proved to be a particularly difficult aspect of my work. I am therefore very grateful to the Research Committee of the Jewish Board of Family and Children's Services which offered me access to the patient populations of their many clinics. I would like to particularly thank the directors and staffs of the many Madeleine Borg Community Services Clinics who assisted me in initially contacting the families of potential subjects, and later, patiently tolerated my numerous follow-up telephone calls about cases.

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## INTRODUCTION AND STATEMENT OF THE PROBLEM

History and literature over the centuries have recorded the profound influence that siblings can have upon one another. Themes of rivalry, jealousy, solidarity, ambivalence, struggle for power, identification, and competition for love and specialness have been repeatedly and vividly portrayed. Cain envied the favor his brother found in the eyes of God; Joseph's brothers envied the special affection he received from his father; Esau felt murderous impulses towards his twin brother Jacob. Greek myths and tragedies are also replete with allusions to sibling relationships and accounts of both lighthearted and tragic sibling interactions are similarly evident in Shakespeare's comedies, histories, and tragedies. Certainly one finds most vivid descriptions of the sibling relationship in fairy tales such as Cinderella and Hansel and Gretel. Despite the universality of various aspects of the sibling relationship, however, studies of sibling interactions have until recently been relatively rarely undertaken in the field.

The literature on sibling interaction has emphasized the effects of the birth of a sibling upon a young child. Early studies had primarily focused on the development of

sibling rivalry for possession of the mother, and the rage and aggression which accompany the older sibling's feelings of abandonment and replacement (Freud, 1900, 1905, 1910, 1916-1917; Levy, 1936, 1937). In the past two decades, research has increasingly explored broader aspects of the sibling relationship. In addition to the studies on the effects of the birth of a sibling (Dunn & Kendrick, 1980, 1981, 1982; Dunn, Kendrick, & MacNamee, 1982; Field & Reite, 1984; Hurry, 1978; Kendrick & Dunn, 1981, 1982; Legg et al., 1974; Lundberg, 1979; Nadelman & Begun, 1982; Tooley, 1975), current research includes birth order and sibling status studies (Arnstein, 1979; Bank & Kahn, 1982; Bryant, 1982; Lamb & Sutton-Smith, 1982; Sutton-Smith & Rosenberg, 1970); reactions to chronically ill siblings (Bergman & Wolfe, 1971; Binger, 1973; Gath, 1972; Lidz et al., 1963) and experience of loss or death of siblings (Berman, 1978; Cain et al., 1964; Hilgaard, 1969; Musatti, 1949; Pollock, 1978); twin studies (Bernstein, 1980; Burlingham, 1946; Dibble & Cohen, 1981; Lament & Wineman, 1984; Leonard, 1961); studies of the role of siblings in family systems (Kahn & Bank, 1980, 1981; Kreppner et al., 1981; Minuchin, 1974; Schutze et al., 1982; Toman, 1976); variables in adult sibling relationships and sibling interactions as they develop and unfold throughout the lifespan (Allan, 1977; Bank & Kahn, 1975; Cicirelli, 1977, 1980, 1981, 1982; Kahn

& Bank, 1981; Lamb & Sutton-Smith, 1982; Troll et al., 1978).

Despite the tremendous increase in research in this area, however, many aspects remain unexplored. For example, few studies have explored the younger sibling's experiences in relation to his or her older sibling. Given the range of reactions that older children have to their younger brother or sister, one can hypothesize that the younger sibling will in turn experience a variety of reactions and counter-reactions to an older sibling. A specific area which has received little attention is that of sibling relationships during the latency and adolescent years. As Colonna and Newman (1983) indicate in their extensive review of the psychoanalytic literature on siblings,

With the changes in theoretical formulations, psychoanalysts have looked with greater interest at the impact of early experiences, identifications and object relations on subsequent developmental phases, but the role of siblings during latency and adolescence has not been specifically studied. (pp. 303-304)

Although the influence of early experience and particularly, the role of parents in the development of one's internal object relations has been explored at length, a neglected area of study in both the sibling and object relations literatures, has been whether sibling relationships can impact upon the development of these internal structures. The purpose of the present study is to address this question by specifically focusing on the

impact of an aggressive, adolescent-aged brother on his younger, latency-aged sister. An attempt will be made to assess the manner in which aggressive behavior will affect the development of object representations in the female sibling.

In order to address this question a review of the literature on sibling relationships will be undertaken in Chapter I. As noted above, few studies were found which were specifically concerned with the questions raised by the present study. Therefore, the literature to be reviewed will address a range of related areas of research on sibling relationships, in the hope of providing both a historical framework and a conceptual context for the present study. The first area to be discussed is the child abuse literature, with specific reference to abusive and violent sibling interactions. The role of parents in sibling abuse will then be discussed, with an emphasis on the possible collusion of a parent (be it conscious or unconscious), with an abusive child against the abused child. Theoretical and conceptual formulations of the sibling relationship will be summarized, then illustrated by case studies, clinical research, and observations on the relationship between siblings. Writings which address potential benefits that can result from sibling relationships will be briefly reviewed. This will be followed by a discussion of the findings of empirical research studies. Finally, as the Rorschach test will be

employed to assess the nature of internal object experiences and specifically, the development of malevolent and aggressive inner experiences, a review of the manner in which the Rorschach test has been used to assess both object relations and aggression and hostility will be engendered.

Chapter II will describe the method used in this study. Chapter III will provide a description of the analysis of the data and a summary of the findings. Chapter IV concludes the study with a discussion of possible implications and limitations, and recommendations for future research.

## CHAPTER I

### REVIEW OF THE LITERATURE

#### The Abusive Sibling

A youngster running to her mother or father with the plaintive cry, "He's hitting me again," or "He's being mean to me," or simply, "Tell him to leave me alone!" is at certain stages familiar to many parents of two or more children. In addition to those incidents of sibling hostility which are actually reported to parents, guardians, and authority figures, there appear to be obvious and subtle forms of abusive interactions that remain unreported by children and unnoticed by adults. Both the clinical literature and popular accounts of family interactions suggest the universality of sibling rivalry and hostility. In light of this, it is striking that the available literature in the areas of both child abuse and incest only marginally address aggressive brother-sister interactions. Gelles and his colleagues (Gelles, 1982; Straus, Gelles, & Steinmetz, 1980) report alarming statistics of parental abuse of their children as well as abuse by siblings. An important study by Straus, Gelles, and Steinmetz (1980) attempts to measure various aspects of family violence and child abuse, including the incidence and types of violence towards children, and

other issues regarding violence in the family. The investigators are reported to have based their estimates of familial violence and abuse on self-reports made by a nationally representative sample of 2,143 individual family members. Their random sampling technique made the survey generalizable to all intact families in the United States. Gelles (1982) summarizes the data generated in this study on sibling violence:

Of the 2,143 respondents, 733 had 2 or more children aged 3- to 17-years living at home. On the basis of the behavior in these 733 families (as reported by a parent), it was estimated that during the course of one year, 4 of 5 American children use one form of violence on a sibling. More than half the children were reported to have kicked, bit, punched, hit with an object or beaten up a brother or sister. When the rate is projected to the 36.3 million children in the U.S. aged 3- to 17-years who live with siblings of the same age range, it yields an estimate of 29 million attacks on the siblings.

(p. 29)

Straus et al. (1980) suggest that these figures most probably underestimate the actual number of sibling attacks. First of all, their study only involved two-parent families and they suggest that the incidence of aggressive interactions between siblings may be greater in single parent families. Second, the study was based on parent's reports of abusive interactions between their children. The authors indicate that many abusive interactions occur of which parents are unaware. Third, in many families, fights are taken for granted and less blatant forms of violence may be forgotten. Finally, the

research only considered violence perpetuated by one child in a family. Straus et al. write:

Taking the most dangerous of the situations we asked about, a child actually grabbing for a knife or gun in an argument with another child, .03 percent had done this in the survey year, and 5% at some time. The .03 figure comes to a national rate of 138,000 children a year; while the 5% figure means that about 2.3 million children in the United States have at some time used a knife or gun on a brother or sister. (1980, p. 117)

The widespread prevalence of such attacks is, thus, particularly noteworthy.

In a study on the child abusing parent, Spinetta and Rigler (1972) suggest that the focus of most studies of abused children has been on demographic and causal factors rather than on the reaction and experience of the abused child him/herself. Similarly, accounts of sibling abuse have primarily emphasized personality characteristics, diagnostic considerations and motivational factors in the behavior of the abusing child rather than addressing the responses or experience of the abused child. Cameronchild (1980) links the experience of being abused by a parent with perpetrating abuse on a sibling. The author suggests that children who are abused by parents reportedly may adopt the defense of identification with the aggressor as a means of coping with their frustration and anger, and find a victim in their younger siblings. In her autobiographical account Cameronchild supplies the following description of violent familial relationships:

At home they [the author's brothers] would pick up the nearest object and beat on another sibling with it if they were crossed. This is understandable both in light of our father's ever-present example, and because we couldn't yell and argue like other siblings...one of my brothers and I had learned to equate anger with violence. (1980, p. 25)

Thus, in such families, anger can be discharged by means of physical violence, and children imitate parental models of physical aggressiveness rather than learning to verbalize and articulate feelings of anger. Moreover, siblings are generally considered safer targets than parents. As Arnstein (1979) suggests, the abuse of a sibling can in many cases be a displacement from deeper feelings of anger towards a parent:

Anger triggers aggressive responses to such unhappy experiences as: feeling put down, humiliated, frustrated, disappointed, rejected, afraid, threatened, jealous, insecure, physically attacked, abused, powerless or any of a number of assaults on who and what we are. Young children may have temper tantrums in response to any of these provocations and kick or lash out in body language. Their brothers and sisters are a natural object to vent their feelings upon--less dangerous than attacking the powerful parent. (p. 44)

The abusing sibling is further described by Arnstein as defending against his or her own feelings of fear, self-doubt, inadequacy and envy by attacking the sibling. While teasing and name-calling can be seen as an affectionate means of establishing contact, they can also "resound with the intention of cutting the sibling down to size...cutting down makes the teaser feel superior" (Arnstein, 1979, p. 47).

Several accounts of murderous attacks by children against parents and siblings are described in the literature (Adelson, 1972; Bender, 1953, 1960; Duncan & Duncan, 1971; Paluszny & McNabb, 1975; Sargent, 1962). Adelson (1972) indicates that most of the literature on children who kill suggests that the overwhelming majority of child murderers are adolescents. Thus, actual homicides by pre-adolescent children are considered to be rather rare. On the other hand, Adelson summarizes the existing literature on violent and abusive children by suggesting that less extreme types of abuse than actual murder may be more commonly acted out by younger siblings. Thus, while several accounts suggest that pre-adolescent and latency-aged children abuse younger siblings, it is rare, according to Adelson, for pre-adolescent youngsters to actually kill their infant siblings.

Bender (1960) describes 33 boys and girls who, before the age of 16 years, had been associated with the death of another person, either by causing or being blamed for a death by themselves or others. She discusses psychiatric symptoms which, when they occur in combinations, may dispose a child more strongly towards a murderous action. They are cited as follows:

1. Organic brain damage with an impulse disorder, and abnormal EEG and epilepsy (perhaps latent);
2. Childhood schizophrenia with preoccupations with death and killing in the pseudoneurotic phase or with anti-social paranoid preoccupations in the pseudo-psychopathic phase;
3. Compulsive fire-setting;

4. Defeating school retardation (reading disability);
5. Extremely unfavorable home conditions and life experiences;
6. A personal experience with violent death: thus, having once been associated with a death, a child is always dangerous thereafter. (p. 512)

While this study does not specifically address homicidal actions towards siblings, it is possible that the above characteristics could also exacerbate violent or murderous actions towards siblings.

Several clinical case studies of violent or murderous attacks on siblings are recounted in the literature. Paluszny and McNabb (1975) discuss the rare case of a 6-year-old girl who killed her 4-month-old brother when he began to cry. She reportedly removed him from his crib and in an attempt to quiet him, banged his head against the wall until he died. In a discussion of the dynamics in both the youngster and her mother, the authors suggest a complex web of factors which may have contributed to this outcome. First, the mother covertly allowed her daughter to act out her own anger and hostility towards men by attacking the small boy. Secondly, the view of her young brother as a hated rival for her mother's attention and affection, coupled with unresolved oedipal issues and mother's ambivalence, catalyzed this youngster to such an extreme action.

Carek and Watson (1964) report a case involving a 10-year-old boy who shot his 6-year-old brother when he refused to obey him. The authors saw the shooting as "a

volcanic eruption of the pent-up rage which the family had kept tenuously under cover so long" (pp. 538-539). The parents had been experiencing severe marital difficulties and there was considerable chaos in the family. A discussion of the treatment in this case indicates that the boy who was the oldest of the seven children in the family was treated while in an inpatient setting. The therapists chose to primarily deal with the defense of denial in order to resolve the conflicts over aggression and hostility which had led to such violent behavior. The authors suggest the following conceptualization of the event: "Feelings of helplessness lead to anger which in turn magnifies the sense of helplessness. When it reaches unbearable limits, acting out with manifold evidence of disoriented impulsive behavior erupts" (Carek & Watson, 1964, p. 539).

The clinical case studies of Hurry (1978), Lundberg (1979), and Tooley (1975) describe incidents of violent sibling interactions. Tooley's case involves the murder of one sibling by another. Hurry and Lundberg both provide accounts of young girls who have intensely envious, aggressive, and violent reactions to the birth of younger siblings. These accounts provide vivid clinical descriptions of the conceptualizations of Freud and other psychoanalytically-oriented theorists. Clearly, rivalry and jealousy are ubiquitous phenomena and can develop into extreme reactions, often exacerbated by the acting out of

complex factors in the family and parental relationship. Occasionally, in such situations, the intensity of the feelings can lead to murder.

#### Parental Role in Sibling Abuse

Numerous accounts in the literature suggest that children who physically or emotionally attack siblings may be responding to overt or subtle messages communicated by the parents. Rodriguez (1977) suggests that "frequently, physical abuse of siblings can result from: (a) a lack of parental supervision, or (b) a projection of parental wishes and sentiments which are carried out by the siblings" (p. 69). Schmitt (1980) speaks of "alleged sibling inflicted injury," i.e., a situation in which parents have difficulty explaining the injuries sustained by their child, and frequently attribute them to rough play with a sibling. For example, a parent may report that a sibling dropped a toy on the injured child or threw a bottle at him/her. The authors point out that the degree of seriousness and the number of injuries usually contradict this explanation. Thus, attacks may be the result of parental irresponsibility or inability to provide structure, supervision, and to set limits, or may be fabricated by parents who attribute signs of physical attack to siblings rather than admitting to their own abusive actions. Johnson and Szurek (1952) report that parents may derive vicarious gratification of their own poorly integrated forbidden impulse in the acting out of

their child and, consequently, they exhibit permissiveness and inconsistent setting of limits. The child's expression of the parent's forbidden unconscious impulses was found by these authors to be a frequent and predictable mechanism operating in truant children and in those who steal or demonstrate sexual aberrations.

Tooley (1977) discusses frequent parental unwillingness to permit psychiatric attention for a child who has been abused by a sibling. She writes that parents seem hesitant to report and in some cases do not even recognize the attacks one child perpetrates against another. The author posits several possible reasons for this: first of all, parents "...feel that overt recognition of such a high degree of hostility among family members would endanger the family's ability to function as such and they consequently use the defense of denial to a startling degree" (p. 463). Secondly, denial is also used as parents attempt to smooth over or minimize the degree of aggression displayed by a problem child. Furthermore, a younger sibling may be "...the family's sacrificial lamb bearing the brunt of considerable physical punishment from an older sibling and deflecting such abuse from other family members" (p. 463). Finally, Tooley suggests that children can act out towards their siblings parental wishes to be unencumbered by younger, more dependent children. Therefore, the parents would have an unconscious need not to acknowledge the abuse as a

means of denying their unconscious motivations.

Social learning theorists (Bandura, 1975; Bandura et al., 1961; Maccoby, 1959; Skinner, 1953) have demonstrated that children can acquire aggressive behavior by observing aggressive parental models, particularly in the context of disciplinary activities. Straus, Gelles, and Steinmetz (1980) indicate that, "violence between siblings often reflects what children see their parents doing to each other as well as what the child experiences in the form of discipline. Children of non-violent parents also tend to use non-violent methods to deal with their siblings" (p. 94). Thus, the more often the parents in this study hit their children, the more likely it was for a child in the family to have severely attacked a brother or sister. These findings support the view of learning theorists that aggression is a learned reaction rather than an instinct or a drive. Arnstein (1979) also indicates "that parents who physically punish their children can set the example of a physically violent force" (p. 50). For example, in one such paradigm, she notes "because a brother probably identified with the angry, attacking side of his parent at such moments, he'd often continue to let out his physical expressions of anger on a smaller, more helpless sibling as an opportunity to even the score" (p. 50).

Easson and Steinhilber (1961) have noted that when the ability of parents to set limits and communicate moral scruples is inconsistent, the child may act out his/her

parent's antisocial tendencies, but may have some vague feelings of guilt. They further suggest that in cases where a parent has no moral scruples regarding antisocial behavior, the child can also act in this fashion without feeling guilt. The results of their study of eight boys who had made murderous assaults indicated that the pattern of physical violence was set for these boys either by parental example or by parental approval. They cite several cases which demonstrate their thesis. One case involved a 15-year-old boy who had choked his mother to the point of near unconsciousness. Here, "the mother was aware of her hostile, destructive impulses toward the boy and of her role in fostering his delinquency, truancy, and murderous rages. She admitted freely her own murderous impulses toward her son" (p. 6). In another case of a 13-year-old boy, the youngster repeatedly asked his parents for one or another form of discipline and limit setting which the parents were unable to provide. They apparently indicated to him, however, that they expected aggressive and dangerous behavior of him. Easson and Steinhilber further note:

Most of the boys...had collections of knives and guns which they were allowed to retain and in some cases, to augment, even after several episodes of extremely violent and menacing behavior. In each case, the child was repeatedly given to realize that his parents expected him to be physically violent and antisocially aggressive, even to the point of murder. (p. 7)

Although these cases do not specifically involve assaults towards siblings, the authors are suggesting that

murderous violence or murder committed by children and adolescents occurs in situations where there is parental fostering, albeit unconscious.

The aggressive and violent actions of the majority of subjects in Easson and Steinhilber's (1961) study were primarily directed toward parents, with only a few instances of aggression directed towards siblings. However, a study on serious sibling abuse by pre-school age children was undertaken by Rosenthal and Doherty (1984) who comment that unconscious impulses of parents may be expressed by children, and that pathological sibling abuse may be tacitly condoned and amplified by the parents. They reiterate Steinmetz's (1977) findings that when parental values are unstable or are enforced arbitrarily, sibling relationships can become chaotic and murderous. The authors suggest three psychodynamic factors associated with abusive behavior of one sibling towards another: (a) chronic parental abuse of the child and conflicts around nurturance; (b) unconscious, covert parental permission for the child's aggressive behavior; and (c) parent's identification of the child with a dangerous, destructive person in his or her life, so that the youngster develops an unconscious experience of him/herself as a destructive object.

Rodriguez (1977) also suggests that sibling abuse is commonly due to a lack of parental supervision and at times results from the enactment of parental wishes and

sentiments by siblings. He provides a rather concrete example of such a situation in which a mother frequently threatened to throw her 4-year-old son into a tub of water unless he stopped crying. When left alone with a baby brother, this youngster threw the baby into a tub of water when he cried. Thus, Rodriguez indicates that a child can express toward a sibling the aggressive feelings that a parent expresses to him/her, using the defense of identification with the aggressor.

Like other theorists, Bank and Kahn (1982) discuss siblings who lack a mature parent as often being forced upon one another in ways which can breed destructive conflict. Parents can avoid, suppress, or amplify conflicts between their children. However, in discussing the power parents can have in the development of their children's sibling relationships, the authors also suggest that parents can be useful as managers of sibling conflict. Arnstein (1979) emphasizes this as well, suggesting that respect and appreciation of a youngster by his/her parents will promote self-esteem in the child and will diminish his/her need to undercut and abuse siblings. On the other hand, Arnstein reports that parental favoritism for one child can engender considerable envy and rivalry in the siblings, causing them to act out their anger toward the preferred brother or sister. Bank and Kahn (1982) posit that parents need to make the time and have the energy to monitor their children's behavior as

well as gauging their own actions upon the children. Similarly, Ihinger (1975) presents a theory of "parental referee behavior" (p. 522) necessary for the arbitration of sibling conflict. He hypothesizes that the way parents behave in the role of referee has direct bearing upon the frequency of conflict between siblings. While they stress the importance of parental involvement in cases of sibling conflict, Bank and Kahn (1982) also indicate that parents can be overly interfering and over-active, and can deprive children of the opportunity of testing their own capacity for problem-solving.

Bank and Kahn (1982) report similar findings to those discussed by Rosenthal and Doherty (1974) and Rodriguez (1977) regarding parental responses to aggressive actions between their children. They concur that parents who have personal conflicts around aggression may avoid seeing overt displays of aggression or abuse in their children in order to protect themselves from feelings that would be evoked by acknowledging them. Kris and Ritvo (1983) also describe this phenomenon. They suggest, for example, that in some families, the unconscious expression of parental aggression towards a child may be firmly rooted in the parent's unresolved conflicts in relation to his or her own siblings. A parent in this situation may unconsciously experience his or her child as representative of a sibling. This could result in the parent engaging one child in the family to act out towards

a brother or sister the parent's unresolved aggressive impulses toward his or her own sibling.

In an earlier study, Sargent (1962) also suggested that a child who commits a murderous attack is often "acting as an unwitting lethal agent of an adult (usually a parent) who unconsciously prompts the child to act" (p. 35). He suggests that an adult can play upon latent currents of hostility a child may feel towards a victim, hostility which, without the adult's provocation coupled with the child's special susceptibility to it, probably would remain inoperative and under the control of the child's ego. Sargent indicates that a child's susceptibility and readiness to act upon the unconscious prompting of the adult rests upon the immaturity of the child's ego and the presence of a special emotional bond between the child and the adult. Thus, many reports suggest that parents with unconscious conflicts regarding aggression may condone and even subtly encourage sibling conflict by providing inadequate limits on a child's aggressive behavior. According to Bank and Kahn (1982),

Sibling abuse, engendered by parents who amplify conflicts, is probably widely under-reported. Such parents often rationalize their child's aggression as normal horseplay. Given the fact that many aggressive encounters occur every day, a parent can easily express dislike of a child by failing to prohibit violence between children. (p. 205)

Bank and Kahn (1982) further indicate that warring and conflictual marital relationships between parents can unconsciously induce a mirroring of such conflict in the

sibling relationship. Siblings can identify with one or the other parent and end up in conflict with each other. Carek and Watson (1964) propose that in an atmosphere of impulsive and seething parental violence, a child may become confused as to what is and is not allowed in terms of aggressive expression and may learn to imitate his/her parent's violent behavior. As noted earlier in this report, their case study describes a youngster who killed a younger sibling. The authors suggest that at the time of the murder, the boy was experiencing a deep sense of frustration and helplessness when his younger brother did not obey him. His impulsive, irrational manner of dealing with the situation resembled the parent's irrationality whenever they experienced a sense of helplessness. In this family, the authors suggest, the final murderous act represented the eruption of rage which the family had attempted to hide for so long. One can conclude that individual and familial difficulty dealing with aggressive impulses will in many cases result in some form of violent acting out.

In a study on the aggressive characteristics of abused and neglected children, Reidy (1977) discusses descriptions of abused children as overly aggressive. His results support the social learning formulation discussed earlier that children exposed to aggressive parental models will demonstrate aggressive characteristics outside the home (Bandura, 1973). The data are also consistent

with prior research linking physical punishment in the home with hyperaggressiveness in children (Hoffman, 1960; Sears et al., 1957). Although Reidy's study does not specifically address abusive sibling interactions as the result of aggressive parental models, it appears to corroborate the findings of other researchers that children are likely to imitate aggressive parental models and act out aggressively with peers. This might also suggest the possibility of increased agitation and aggression between siblings in such a situation.

In a study of two 6-year-old children with murderous impulses against their younger siblings, Tooley (1975) describes the older children as being especially favored and significantly attached to their mothers. She describes them as:

the ones closely in tune with their mother's unconscious wishes and needs. They act out for their mothers in murderous fashion against younger siblings...the mothers were not concerned with such extremes of aggressive attack as setting fire to the baby's crib, experiments with drowning siblings, and igniting the sibling's clothing. These episodes were quite likely to be shrugged off as mischievous.  
(p. 306)

According to Tooley, in these cases the elder children perceived themselves as special caretakers for their mothers who were aware of this bond and derived considerable gratification from it, often at the expense of the well-being of younger siblings. Tooley also indicates that identifying their younger siblings as unwelcome burdens and consequently acting aggressively

towards them had defensive aspects as well: their aggressive actions towards less favored siblings helped them to sustain a repression of their suspicion that they, themselves, were as much unwelcome burdens as the siblings. Tooley suggests that in one case the youngster was not specifically angry at the other children for being rivals but, rather, that they overstrained and jeopardized the mother's limited capacity for mothering. As Tooley indicates, young victims of aggressive siblings may be naive about the degree of danger they are in, are not sure about what is happening to them and cannot or do not describe it. Tooley continues, "If a mother is not upset or frightened, why should they be?" (p. 316). In sum, these researchers concur that parents who are unconsciously identified with an aggressive child may covertly condone his/her abusive actions toward siblings.

#### Theoretical and Conceptual Formulations

Traditional psychoanalytic literature has historically treated sibling relationships as secondary to what was considered the more significant relationship with one's parents. Thus, references in the early literature to the role and influence of sibling relationships are comparatively few. Early writers considered aggression in the sibling relationship to be almost exclusively the result of the jealousy and rage engendered by the birth of a sibling. Sibling relationships were seen by Freud to arouse both intense feelings of competition for the

parent's coveted and previously exclusive love and attention and feelings of being replaced. According to Freud (1919), oedipal conflict is an important determining factor in sibling relationships. Siblings are disliked primarily for the jealousy they engender in one another; they are seen to represent the dreaded necessity of sharing parental love. Rivalry for the parent's (especially mother's) attention and the experience of feeling displaced and possibly replaced results in aggressive fantasies and death wishes toward the younger sibling. In the Analysis of a Phobia in a 5-Year-Old Boy (1909), Freud describes Little Hans' jealous reaction to the birth of his sister Hanna when he was 3-1/2-years-old. The following narrative provided by Hans' father documents the youngster's murderous wishes toward his sister:

I: (Hans' father): Are you fond of Hanna?  
Hans: Oh, yes, very fond.  
I: Would you rather that Hanna weren't alive or that she were?  
Hans: I'd rather she weren't alive...  
I: If you'd rather she weren't alive, you can't be fond of her at all.  
Hans: Hm, well.  
I: That was why you thought when Mummy was giving her bath, if only we'd let go, Hanna would fall into the water...  
Hans: (taking me up) and die.  
I: And then you'd be alone with Mummy. A good boy doesn't wish that sort of thing though.  
Hans: But he may think it. (1909, p. 71-72)

Hans, thus, dramatically demonstrates the link between the childhood wish for the exclusive and special love of parents with the aggressive fantasies and impulses a child harbors toward a sibling. A youngster's hostile wishes

toward a sibling may be satisfied by his/her watching the sibling being beaten by a parent. This can also provide considerable gratification of oedipal wishes. Freud (1919) suggests:

The idea of the father beating this hateful child is therefore an agreeable one, quite apart from whether he has actually been seen doing so. It means: my father does not love this other child, he loves only me. (p. 187)

Freudian theory further suggests that the birth of younger siblings inevitably enlarges the oedipus complex into a family complex:

This, with fresh support from the egoistic sense of injury, gives grounds for receiving the new brothers or sisters with repugnance and for unhesitatingly getting rid of them by a wish. It is even true that as a rule children are far readier to give verbal expression to these feelings of hate than to those arising from the parental complex...A child who has been put into second place by the birth of a brother or sister, and who is now for the first time almost isolated from his mother, does not easily forgive her this loss of place; feelings which in an adult would be described as greatly embittered arise in him and are often the basis of a permanent estrangement. (1916-1917, pp. 333-334)

Therefore, Freud viewed the birth of a sibling as a potentially conflictual event in the life of young children, who experience it as an unwelcome, unexpected slight and an act of faithlessness on the part of parents (1919). It seems clear that the sibling relationship can be replete with many meanings for children. It can evoke significant fantasies and can have many impacts on the developing personality organization of a young child. In addition to the previously mentioned aspects of the role it can play, Freud (1916-1917) also indicated that as

children develop, siblings can become replacements or substitutes for unattainable oedipal objects:

As these brothers and sisters grow up, the boy's attitude to them [siblings] undergoes very significant transformations. He may take his sister as a love object by way of substitute for his faithless mother...A little girl may find in her elder brother a substitute for her father who no longer takes an affectionate interest in her as he did in her earliest years. Or she may take a younger sister as a substitute for the baby she has vainly wished for from her father. (p. 334)

Freud's work with his adult patients provided a rich clinical arena for exploring many aspects on one's inner life and unconscious experiences. Adult expressions and fantasies were in some cases seen as derivatives of childhood relationships with siblings. While these earlier feelings about siblings are frequently repressed, Freud wrote that they can often be evidenced in dreams. In discussing dream symbolism, for example, Freud (1916-1917) suggested that children, brothers and sisters are symbolized as small animals or vermin. He provided numerous clinical case examples of patients who dreamed of the death of siblings, or little children who wished their siblings dead or vanished (1900). He indicated that many adult patients who consciously love brothers and sisters and would feel bereaved if they were to die, harbor unconscious hostile wishes against them originating from earlier times, which can be realized in dreams.

Freud (1917) also discussed the case of a 27-year-old male patient for whom the feelings of jealousy and competition persisted unresolved into adulthood. Until

his fourth year, he "had had the exclusive, uninterrupted possession of his mother's affection. When he was not yet four, a brother...was born and in his reaction to that disturbing event, he became transformed into an obstinate, unmanageable boy who perpetually provoked his mother's severity" (p. 149). Freud suggested that this patient "never regained the right path" and that his current adult conflicts originated in part from this early traumatic experience. Thus, while the primarily hostile and competitive feelings are often subsumed in adulthood by more affectionate feelings, in certain cases they can continue to predominate.

The hostile attitude is most clearly evident, according to Freud (1900), in children between the ages of 2-1/2- and 4- to 5-years at the time when the new sibling arrives. His accounts show that already by the age of two, children "are capable of jealousy of any degree of intensity and obviousness" (1900, p. 251). He described the child, who, upon viewing his newborn brother, exclaimed, "I don't like him! The stork can take him away again" (1916-1917, p. 204). Freud (1900) suggested that from an early age, children can form an accurate estimate of the threat a younger sibling can pose and that hostility which can emerge throughout life towards siblings often dates from the moment of the arrival of the newborn. In the early months and years of this relationship, an older child will, according to Freud,

attempt at every opportunity to disparage the baby and possibly injure him, and in extreme cases, to make murderous assaults (1900).

Reactions to a younger sibling can vary, depending upon the age difference between the two siblings. Freud (1916-1917) suggested that if the difference is less than two years, by the time the older child's mental capacities have matured slightly,

He finds his competitor already there and adjusts himself to him. If the difference is greater, the new baby may from the first arouse a certain sympathy as an interesting object, a sort of live doll; and where the difference in age is of eight or more years, solicitous, maternal impulses may already come into play, especially in girls.  
(pp. 204-205)

While Freud predominantly emphasized the reactions of an older sibling attendant to the birth of a new child in the family, he also suggested that the younger brother or sister can harbor intense feelings towards his or her older siblings as well:

The elder child ill-treats the younger, maligns him and robs him of his toys while the younger is consumed with impotent rage against the elder, envies and fears him or meets his oppressor with the first strivings of a love of liberty and sense of justice. (1900, p. 250)

Freud (1922) proposed that conflicts in early sibling relationships can lead to later problems in sexual development and sexual identity. Descriptions are provided of younger siblings whose sexual adjustment may be related to early feelings about their older siblings. He specifically mentioned several cases of young boys whose intense rivalry with older brothers for mother's

attention gave rise to powerful aggressive impulses and death wishes. However, given the processes of repression, socialization, and a continuing experience of powerlessness in relation to the elder brother, the rageful feelings in the young brother were in these cases transformed into positive feelings, and the rivals of the earlier years developed into the first homosexual love objects. Elsewhere, Freud (1920) discussed the case of a woman whose homosexual development was related to her childhood relationships with brothers. As a young girl, oedipal feelings were evidently displaced from her father to an older brother in relation to whom she felt intense penis envy and rivalry. It appeared that these feelings which has been repressed, re-emerged when a male sibling was born during her adolescence. Her solution was to turn away from the male objects of her envy towards females, explaining, according to Freud, her homosexual object choice.

To summarize, Freud's clinical observations of his patients provided rich, pioneering insights into the vicissitudes of the sibling relationship, highlighting its profound effects in early childhood as well as later in life. His focus was on the effect of sibling birth on an older child, with vivid descriptions of the envy and jealousy which develop when a youngster feels replaced by the newborn. This can be intensified by the child's oedipal struggles and his/her view of the sibling as

simply one more rival with whom to contend. Early experiences in relation to siblings are described by Freud as in many cases affecting later relationships and potentially influencing adult object choices.

Although Freud wrote a good deal about the importance of siblings, it must be noted that relative to the overall, voluminous body of his work, the topic of siblings received comparatively little attention. As Colonna and Newman (1983) note, the Standard Edition of Freud's work mentions neither "siblings" nor "birth of sibling" in its index, and "brothers and sisters" and "relations between" them are noted only five times. A lack of emphasis on the subject and frequently, a lack of mention of siblings altogether has prevailed in the literature in the field.

Strikingly, despite Freud's relative lack of emphasis in this area, his contribution was substantial when compared with that of his immediate followers. Most addressed the topic of siblings with considerably less detail and apparent interest than Freud himself. Like, Freud, most psychoanalysts viewed relationships between siblings as secondary in importance to the primary relationship with parents, and reactions to siblings were seen as mediated through the more fundamental relationship to the parents. Melanie Klein (1961) described siblings primarily as objects of jealousy, envy, and rage. In her theory, the existence of brothers and sisters prevents the

child from maintaining the fantasy of total possession of the mother. The introjection of the maternal figure as exclusively one's own is interfered with by the presence of siblings. Klein, like Freud, suggested that sibling relationships basically reflect aspects of children's feelings toward their parents. In Narrative of a Child Analysis (1961), Richard's wish for a younger sibling is based upon his wish for an ally during parental disagreements, but in his fantasy, siblings also represent hostile, treacherous figures who could expose him for his aggressive and jealous feelings.

Winnicott (1931) described the child's jealous reaction to a sibling being born and enumerated the many physical symptoms he or she may develop in response to the mother's pregnancy and the sibling birth. He discussed the development of such symptomatology as enuresis, constipation, temper tantrums, congestion, and loss of weight when a sibling is born, resulting from the youngster's anxieties about being discarded or replaced. However, he also suggested that this early experience of sibling rivalry can be of value in the formation of the child's personality:

Had the new baby not arrived with all that this implies to a child, Joan would have remained in robust health, but the value of her personality would have been to some extent diminished owing to her having missed a real experience at a proper age. Such an occurrence justifies the statement that it can be more normal for a child to be ill than well. (1931, p. 4)

In his interpersonal theory of personality development, Sullivan (1965) also suggested that sibling relationships can be highly influenced by the quality of the individual relationships with their parents. He described siblings as in many cases fulfilling the role of displacement figures for incestuous fantasies about parents, giving the example of a boy whose feelings for his mother may be displaced onto an elder sister, thus removing the guilt of the deeply unconscious incestuous wishes towards mother. In cases where boys and girls are close in age, Sullivan describes pre-adolescence as a time when sexual behaviors can be engaged in by siblings. Seductions by an adolescent of his or her younger brother or sister can, according to Sullivan, be with or without significant consequences, depending partially on their early training and understanding of sex, and partially on the more current parental attitude and actions especially if the event is reported by the younger sibling. Sullivan also discussed birth order and sex of siblings as significant determining factors in complex family relationships. For example, particular attitudes a parent may harbor towards an eldest son may be reflected in the attitudes that subsequent, younger children have towards their older brother. Generally, Sullivan's brief discussions of siblings focused more on the personality development of individual children in a family given their relationships to parents in light of sex and birth order,

than on their relationships to each other.

Adler's (1928) discussions appear to have been singular in treating the relationship between siblings as separate and distinct from the relationship between children and their parents. He was the first of the neo-Freudian theorists to discuss the specific influence of birth order and sex of siblings. Adler suggested that these were: (a) important determining factors in the evolution of a sibling relationship, and (b) independent of the effects of parental influence on the development of the relationship between siblings.

The postulations of Freud and his followers regarding sibling rivalry as a particular result of sibling birth have been discussed by more current clinicians, theoreticians and researchers. Writers of case studies in the child analytic literature corroborated the early findings of the potentially traumatic nature of the experience of the birth of a sibling. Bornstein's (1949, 1953) illuminating case studies describe two situations in which the birth of younger sibling proved to be a significant determining factor in the development of neurotic symptomatology in the patients discussed. Similarly, as previously mentioned, case studies by Hurry (1978), Lundberg (1979), and Tooley (1975), suggest the profound influence that sibling birth can have on an older child both at the time of the event, and with significant repercussions throughout childhood. Reactions in these

cases included intense envy, rivalry and displays of aggressive fantasies and behaviors and, at times, murderous impulses.

Abend (1978) reviews Freud's early statements regarding the influence of oedipal struggles in the development of a conflictual sibling relationship. He reiterates that conscious and unconscious erotic feelings that arise between siblings are generally viewed in psychoanalytic theory as more easily accessible derivatives of oedipal fantasies and wishes, and contends that they serve a defensive function. He does, however, cite two clinical case examples which describe situations where early incestuous attachments specifically to siblings rather than to parental figures influenced object choice in adulthood.

Arnstein (1979) and Pfouts (1976) also emphasize that a rivalrous sibling relationship can develop as the result of competition for love, attention, and acknowledgement of parents. Each child wishes to be considered the most special parental favorite. Pfouts suggests that in later childhood, competition to be viewed by the outside world as a competent individual in comparison to a sibling can play a significant role in the continuation of a rivalrous sibling relationship. The establishment of status in society often follows and is dependent upon the status and standards previously established by older siblings. Thus, when rivalry for parental love ceases to be the primary

factor, siblings continue to struggle for recognition by peers and authorities outside of the family matrix, and younger siblings must frequently establish their identity by competing with an already established status and identity formed by an older brother or sister.

Adelson (1972) reiterates that Freud and his followers have shown that violently aggressive tendencies and the death wish towards siblings occur most prominently in the pre-genital stages of development, when a sibling's rivalry and jealousy for the actual or anticipated loss of mother's attention is at its peak. According to Adelson, the motivation for violent actions may be "a sense of rejection or rivalry with a sibling or resentment by the assailant of the presence of a younger child who threatened his sense of security or place of priority in the household" (p. 161).

Bender (1953) indicates that death wishes towards siblings may be heightened during the oedipal phase when a small boy wishes his father dead in order to occupy his place in his mother's bed. The death wishes against younger siblings (both born and unborn) are the result of jealousy in the actual or imagined attention the sibling will receive from mother. In Bender's report, psychoanalysis of children with overt expressions of death wishes towards siblings indicated that the fundamental problem was a rivalry with siblings, other children, or adults for the attention of parents or parent substitutes.

Bender emphasized that it is usual and normal for youngsters to feel rivalrous and that such feelings generally find expression if not overtly, then in fantasy material, play, verbalizations or social relationships. She found it striking that in the normal or average situation, the fantasies and feelings of rivalry and competition are rarely expressed in any actual menacing behavior. However, when the oedipal situation or feelings of sibling rivalry are particularly intense, the child may react with overt acts of extreme violence calculated to cause death.

According to Bender (1953), murderous aggression towards siblings may also be exacerbated by the experience of:

Sibling rivalry in a foster home where strong positive emotions of love do not offset the negative emotions engendered by the sibling rivalry situation; if organic inferiority or intellectual inferiority such as a learning disability overwhelm the child without chances for compensation, or if the reaction pattern of the whole family is one of violence and aggression with which the child both identifies himself and must defend himself against. (p. 114)

Thus, Bender attributes the development of violent behavior in young children to factors such as an identification with severe aggressive behavioral patterns of parents and severe deprivation as well as to the influence of organic factors.

Bender's study, as well as those by Adelson (1972), Tooley (1975), and Paluszny and McNabb (1975) propose a further determining factor in the development of overt

violent behavior towards siblings in childhood. These authors suggest that pre-adolescent children may not yet have the cognitive maturity to understand the concept of the permanence and irreversibility of death. Youngsters who commit violent, murderous attacks against siblings may have, in Piagetian terms, pre-operational or concrete operational modes of thinking that would preclude cognitive functioning necessary to understand the meaning of death. This would, therefore, not be an influencing factor in cases of adolescents with murderous impulses unless organic deficits interfered with the youngster's age-appropriate cognitive functioning.

Anna Freud (1965) suggests that children understand the birth of a sibling as their parent's unfaithfulness to them as well as an indication of dissatisfaction with and criticism of them. The child assumes that if he alone were adequate and sufficient, his parents would have no need for another child. Thus, sibling birth is experienced as an act of hostility to which the child responds with disappointment and anger expressed either in excessive demandingness and clinging behavior or in emotional withdrawal. As with most developmental challenges of childhood of which the birth of a sibling is one, a child can respond with either regressive or progressive tendencies. Where regression predominates, the older child may relinquish his achievements and wish for himself the status of a baby, according to Anna Freud.

She describes sibling rivalry as a normal, expectable developmental occurrence and suggests that when a child in treatment is seen to have an abundance of love for his younger sibling, the analyst must "look for the fate of the absent jealousies" (p. 16).

Neubauer (1982) similarly suggests that the absence of sibling rivalry is a sign of abnormal development. Of course, it does not follow that a youngster who experiences and expresses feelings of intense rivalry will necessarily develop along normal lines. Rather, Neubauer contends that a rupture of the primary relationship between mother and child in response to the birth of a sibling will have serious developmental consequences. For example, it will affect the evolution of object constancy and may also lead to exclusive attachment to the other parent and thus interfere with the working through of the oedipal conflicts.

#### Clinical Research and Observational Studies

Freud's early theories about sibling rivalry and the conceptualizations contributed by many of his followers on the subject have engendered numerous clinical and observational research studies. Several of those which address the question of rivalry in pre-school age children, specifically focusing on repercussions of the birth of a sibling, substantiate the hypothesis that the arrival of a new sibling can unleash intense feelings in an older child. They particularly suggest the pronounced

changes that can occur in the interaction between a mother and her first born child when a new baby is born.

David Levy's (1936, 1937) early Sibling Rivalry studies were the first which systematically explored this area. In one study (1936), pre-school age children with newborn siblings observed doll play situations which represented an older child watching an infant nursing at a mother's breast. The researcher (a) evokes the sibling rivalry situation with no verbal suggestion as to the direction of activity, and (b) exposes the youngster to the dolls, tells him/her that the older doll is seeing the baby for the first time, and asks him/her, "What does s/he do?" The child's recorded responses were found to indicate resentment and hostility in subjects. In an elaborated experiment (1937), Levy verbalized such phrases as, "The mother must feed the baby," "The nerve of that baby," or "Nasty baby at my mother's breast!" (p. 11). Responses were again recorded and results revealed hostility, increased aggression, and a wish for dominance on the part of the older sibling. Levy observed children of varying ages (3-13 years) and developmental stages and found that within age and stage groupings, youngsters displayed similar patterns of behavior in response to the presentation of a younger sibling. Results also showed that for Levy's sample, the closer the relationship between the older child and the mother and as a consequence, the greater the degree of disturbance caused

by the intruding sibling, the more likely it was for a child to react with overt hostility. The initial expression of aggression may be directed toward the mother for causing changes in the child's familiar world and routine. Levy's results further revealed that overt hostility was frequently followed by guilt, self-punishment, reaction formations, defenses against aggression, and a wish to identify with the baby. His studies clearly substantiated Freud's earlier discovery of the existence of sibling rivalry.

In a similar vein, Taylor and Kogan (1973) pointed out that despite both the psychoanalytic view that the birth of a sibling places a major stress on the mother-child relationship and the validation of this in clinical practice, research literature had not documented observational verification of this relationship. They undertook a study of firstborn children and their mothers, observing them in a playroom situation shortly before and shortly after the birth of a second child. Level of involvement and degree of attachment were assessed pre-and post-birth. Both first-born youngsters and mothers exhibited less warmth and increased neutral affect in relation to each other subsequent to the birth of the new baby. This study evaluated only the very early effects of adaptation to the birth of a second child.

Dunn and Kendrick (1981, 1982, 1982a), Dunn, Kendrick, and MacNamee (1981), and Kendrick and Dunn (1980, 1982)

have published numerous studies on the interactions between a mother and her first born child before and after the birth of a second child. Their research has considered relationships between siblings in early childhood. In their studies, the authors attempt to broaden the notion that relations between young siblings consist principally of rivalry for maternal affection. In one longitudinal study (Dunn & Kendrick, 1982; Kendrick & Dunn, 1982), the authors observed 40 first-born children and their families at four intervals: (a) prior to the birth of a sibling, during mother's pregnancy; (b) during the first month after the birth of the second child; (c) when the new sibling is 8-months-old; and (d) when the sibling is 14-months-old. They observed a wide range and complexity of feelings expressed between young siblings that involved considerably more than jealousy. For example, they observed in the young sibling pairs, not only hostility and aggression, but also comfort, consolation, provocation, empathy, pleasure, amusement, and excitement. Their results also indicated significant links between a mother's relationship with each child and the quality of the relationship that develops between the siblings. For example, Dunn and Kendrick (1982) found that in families where there was an intense playful relationship between a mother and her first-born daughter, a relatively poor relationship developed between the siblings. The authors also indicate that for both

first-born girls and boys, a pattern of very friendly interaction between the siblings developed where there had been a high level of spanking and confrontation. They further suggest that if the mothers who had been relatively playful with their first-born children were also particularly playful with their second child, the first children may have reacted to this high level of mother-baby play by behaving in a hostile fashion to the baby. However, these authors also suggest that in order to understand the pattern of mutual influence between family relationships, one must consider many variables besides mother's influence. For example, account must be taken of the temperament of the first child, his or her reaction to the birth of the sibling, behavior patterns and personality characteristics of the younger sibling, and sex constellation and age difference of the siblings. These studies emphasize the need to account for a wide range of determinants beyond the relationship with the mother, which can influence the development of the sibling relationship.

A study of Field and Reite (1984) assesses the affects of separation before, during, and after the mother's hospitalization at the time of the birth of a second child. These researchers monitored preschool children's behavioral and physiological responses to separation around the time of their mother's hospitalization, and found marked changes in both behavioral and physiological

responses in the child. These changes include regressive behavior; an increase in agitation demonstrated by activity level, heart rate and night wakings; an increase in physical aggression, and an increase in both negative and depressed affect during and after hospitalization. The parent report data of this study are consistent with those of Nadelman and Begun (1982) on the effects of separation during and after the mother's hospitalization for the birth of another child. These results also corroborate the earlier findings of Taylor and Kogan (1973) and Legg et al. (1974) that regressions to more infantile patterns of sleeping, feeding, toileting, and social behaviors frequently occur in response to the birth of a new sibling. While Legg et al. (1974) suggest that preparation for the arrival of the new sibling can be useful in helping the child to manage the new situation, they emphasize the impossibility of avoiding the introduction of some degree of strain into a young child's life when a sibling arrives.

It has been shown in the preceding pages that much of the literature on siblings has emphasized sibling rivalry and the deleterious effects the birth of a second child has on an older child in the family. An increasing number of reports suggest the advantageous effects siblings can have upon one another, particularly indicating aspects of the sibling experience which promote growth and development. These will be briefly summarized here.

### Potential Benefits of the Sibling Relationship

Although Freud primarily stressed the conflictual and rivalrous sentiments that exist between siblings, he also recognized benefits which can be derived from the sibling experience. For example, he suggested that despite Little Hans' jealousy around the birth of his sister, the events also promoted intellectual curiosity and engaged Little Hans' mental powers in an attempt to understand where babies come from (1909). Freud also wrote that a young girl may feel the first strivings of a maternal instinct in relation to her new-born sibling, particularly when there is a sufficient difference in their age (1900).

In their review of the psychoanalytic literature on siblings, Colonna and Newman (1983) discuss the developmental gains which a young girl can reap from having a younger sibling. This

may provide a stimulus, especially for a girl who needs a push to move away from her preoedipal desire for union with her mother and the wish to give her a baby. Disappointment of this wish plays an important part in enabling her to make this developmentally necessary turn away from her mother toward her father. (pp. 289-290)

Anna Freud (1965) indicated that while many youngsters regress at the time of the birth of a sibling, some may also manifest progressive tendencies. They may, for example, meet the challenge by taking on the status of a more grown up, responsible child, and enjoy being the "big" brother or sister. Legg et al. (1974) corroborate this finding in their study on preschooler's reactions to

the birth of a sibling. They found that some children show enhanced development following the birth of a sibling in terms of toilet training, greater ability to separate from mother, relinquishing a pacifier, and more independent play.

Rosenthal and Doherty (1984) indicate that the rivalry, jealousy, and anger which commonly exists between siblings can generate a healthy competitiveness and keep relationships vibrant and alive. Freud (1921) suggests that children can manage their negative reactions and conflictual feelings towards siblings by developing appropriate defenses. As noted earlier, Freud wrote that children struggling with oedipal conflicts can displace intense feelings about parents onto siblings and thus create a less threatening situation. They also begin to use reaction formations, reversals, and identifications in relation to siblings. Due to the impossibility of maintaining a hostile attitude towards a sibling without damaging him/herself, a child may be forced to identify with the brother or sister. Bank and Kahn (1975, 1982) also discuss the motivations for and benefits of sibling identification.

Utilizing data and theoretical propositions formulated during the Yale Longitudinal Study and the Psychoanalytic Study of a Family (Kris & Ritvo, 1983; Neubauer, 1982, 1983; Provence & Solnit, 1983; Solnit, 1983), researchers examined the sibling experience with an emphasis on those

aspects that promote development and growth. For example, Neubauer (1982) found that rivalry, envy, and jealousy can lead, within the normal range, to an increased alertness which facilitates comparisons and promotes the differentiation of object and self. Neubauer (1983) also suggests that siblings afford each other an opportunity for empathic responses, identification, differentiation, experimentation, displacement of aggression, sexual curiosity and sex play, all of which can provide special, shared nontraumatic experiences that go far beyond the identification with the parents they share.

Kris and Ritvo (1980) discuss the sibling experience as an important determinant in shaping the defensive structure and in promoting and enhancing ego functions. Provence and Solnit (1983) enumerate the many development-promoting aspects of the sibling experience, such as: stimulation of intellectual interest and curiosity, enhancement of self-awareness, identification with parents around the nurturance of a younger child, a sense of competence and responsibility, loyalty and socialization. Like Rosenthal and Doherty (1984), Provence and Solnit emphasize the transformation of rivalry and jealousy into development-promoting reactions.

The birth of a sibling can teach an older child frustration tolerance, delay of gratification, and can provide an opportunity for learning about responsibility and the rights of others (Einstein & Moss, 1967).

According to Irish (1964), siblings can bring one another into social reality and can provide the opportunity to learn about resolution of interpersonal conflicts. Irish continues that siblings can be good teachers, can understand childhood problems better than adults, can serve as role models, companions, challengers and can contribute to the experience of emotional security in each other.

Arnstein (1972) writes that siblings can be capable of being unselfish, mutually cooperative, generous and loyal to one another. Perlman (1967) suggests that the idea of "sibling support" and sibling love should be considered as significant as is sibling rivalry. She points out that siblings can be allies, companions, and partners, as well as buffers against parental anger or disapproval. They can also serve as substitutes for absent parents. Perlman (1967) summarizes the possible advantages of the sibling relationship at different stages in the lifespan:

Where better than among siblings can parent's meanness and cruelties be grumbled over, or later, parent's stupidities and lack of reason be righteously judged by a jury of peers, or much later still, parental helplessness and sadnesses be shared and jointly borne? (p. 149)

#### Empirical Research Studies

The present review of the nature of the sibling relationship has thus far summarized the literature on abusive sibling interactions and has focused on theoretical formulations and clinical research regarding

relationships of young siblings. The literature on potential benefits which can develop out of relationships between siblings has also been briefly discussed. The impact of sibling birth has been particularly emphasized in this review as it is seen by many researchers and theoreticians as the genesis of both initial and subsequent aggressive interactions between siblings. Empirical research on aspects of the sibling relationship in both the pre-school years and in later childhood have also been conducted. These studies address the influence of brothers and sisters upon each other given the determinants of birth order, age, gender, and the number of children in a family. The studies that have been engendered in this area, as well as those that consider the specific question of aggression between siblings in middle childhood and adolescence will now be discussed.

Following Adler's early lead in theorizing that the sibling relationship can have important characteristics and determinants which are separate and distinct from the influences of parents, Helen Koch became an important, early contributor to the socio-psychological literature of statistical research concerned with sibling relationships. She conducted extensive studies on many aspects of the sibling relationship, and was particularly concerned with the effects of sex, age, and ordinal position of siblings on personality development in children. She studied such traits in brothers and sisters as excitability, intensity

of emotional response, speed of recovery from emotional disturbance, stability of mood, nervous habits, physical activities, health, apprehensiveness relative to physical activities, social apprehensiveness, sensitiveness, tendency to anger readily, self-confidence, finality of decision or degree of vacillation, cheerfulness, tendency to alibi, tendency to project blame, and indirectness of response to fear and frustration. Koch also considered ordinal position, sex of sibling and the age difference which separates the siblings in her exploration into how these variables may affect the aforementioned traits in siblings.

Regarding aggression between siblings, Koch (1956a) found that second-born males with an older male sibling were rated higher in aggression than second-born males with an older sister. Her study does not assess the degree of aggression in second-born females with an older brother. However, results of another study (1956b) indicate that among second-born, girls were rated as being more tomboyish if they had a brother than if they had a sister. Koch had also found that relative to other girl groups, girls with older brothers tended to be quarrelsome, tenacious, revengeful, selfish, competitive, and confident as well as enthusiastic, popular, and high on leadership skills (Sutton-Smith & Rosenberg, 1970). In Sutton-Smith and Rosenberg's (1970) study, results of a recreative inventory similarly indicated that girls with

older brothers showed significantly more interest in athletic recreations than did girls in all female dyads.

Many authors have followed Koch in examining the specific effects that siblings have upon each other. Bryant (1982) indicated that in studying the sibling relationship, many variables must be considered. These include: sex of the child, sex of the sibling, relative ages of siblings, age spacing between siblings, family size, and socio-economic status.

Sutton-Smith and Rosenberg (1968, 1970) and Sutton-Smith (1982) have conducted significant studies on the sibling relationship and concur with Bryant that many determinants in combination have an impact upon the development of sibling relationships. They discuss sibling status, the term they use to refer to characteristics of birth order and sex in combination and, like Koch, they show that siblings, whether male or female, younger or older, affect each other as a result of their own particular sex and age characteristics, regardless of parental influences. They have delineated specific attributes of all possible sibling-pair constellations (i.e., first-born and second-born males of both same and opposite sex, and first-born and second-born females of both same and opposite sex).

These authors studied the ways in which 5th and 6th grade children influence siblings directly older or directly younger than themselves. They found that older

siblings exercise more power over younger siblings than vice versa, and suggest that older siblings can therefore theoretically be expected to exercise shaping and modeling influences (Sutton-Smith & Rosenberg, 1970). The tentative results of these authors' 1968 study of 5th and 6th graders showed that males generally use physical forms of power such as wrestling, chasing, hitting, and attacking more than females in relation to siblings. Females, on the other hand, use reasoning, may become more defensive and tend to make a sibling feel obligated more than males. Because of the use of physical strength, older brothers are seen by siblings as being more powerful. Furthermore, first-born children were reportedly found to ignore, interfere, attack, bribe, boss, and use their status, while second-born children tend to reason, plead, and attack the property of their sibling rather than the person. The authors also found that same sex sibling pairs generally interact using bossing, sulking, and teasing while opposite sex pairs tend to become defensive and make up with each other.

One of the more general findings of Sutton-Smith and Rosenberg (1970) was that the maximum effect of an older child on his/her younger sibling occurred when the age spacing was between two and four years. They further propose that dominance exercised by the more powerful sibling and anger and resentment exercised by the less powerful sibling may be regarded as universal occurrences

across social systems. They contradict the earlier sibling rivalry studies and posit that although jealousy for parental attention can increase the dominance of the older sibling, it is not the origin of such dominance. They suggest, rather, that "the accident of birth creates size and ability differences and these no less than size differences in lower species lead to the institution of pecking order" (p. 54).

Sutton-Smith and Rosenberg summarize complicated and often seemingly contradictory results of studies on aggression in first- and second-born siblings. First of all, they discuss evidence regarding the way in which second-born children model after the power of older siblings. For example, Adler (1959) suggests that second-born children often become power seekers, and Harris (1964) postulates that more second-born become revolutionary in response to subjugation by older siblings. Sutton-Smith and Rosenberg cite the findings of Krout (1939), Singer (1964), and Veroff (1957) who indicate that second-born are more inclined than first-born to exercise power over others. For example, second-born were found by these authors to claim to be more often the boss in play with their friends. Sutton-Smith and Rosenberg's (1968) sociometric study found, however, that these children were not more often perceived as more bossy by class peers. They write:

If their bossing attempts were of a crude character, one would expect them to be less popular, but the evidence at the elementary school level has proved otherwise. In fact, evidence for later borns' popularity leads to the conclusion that they do not model simplimindedly after the overbearing firstborn elders, but that they must have learned a directness and sociability and perhaps 'Machiavellianism' in dealing with those elders which transfers elsewhere. (p. 64)

Therefore, a younger sibling's behavior is seen by some writers as a reaction to the pressure of older siblings, and by others as a modeling after the dominance and power of older siblings.

Sutton-Smith and Rosenberg (1968) cite several studies of preschool children which have established that more overt aggression is displayed by later-born male children. Sears (1951), using play observations, found that both older brothers and sisters were alike in avoiding rough, injurious, hurting types of aggression which were typical of younger siblings. The author found that younger children of both sexes showed more aggression than older children and that only children were like younger children in being more aggressive. Sears also found that older sisters showed practically no aggression at all. Goodenough and Leahy (1927) observed that older siblings were found to be less aggressive than only children and younger siblings when rated on an aggression scale. Sutton-Smith and Rosenberg (1970) report that Macfarlane et al. (1954) similarly indicated that older children tend to internalize characteristic problem behaviors whereas younger children externalize them. In other words, these

authors suggest that later-born strike out more directly with physical outbursts, while first-born are seen to be more inhibited, moody, oversensitive, and dreamy.

Many researchers have explored the question of how children learn aggressive behavior. Bandura et al. (1961) demonstrated that parental influences can markedly effect aggressive behaviors in children. In one study, they expose 72 nursery school-age children to aggressive and non-aggressive adult models, then test them for the amount of imitative learning in a new situation, in the absence of the original aggressive or non-aggressive model. They found that exposure of the subjects to aggressive models increased the probability of aggressive behavior in the children. This was significant for displays of both verbal and physical aggression. In contrast, subjects who were exposed to non-aggressive models and those from a control group, were found to only rarely perform such aggressive response. While Bandura and his colleagues do not specifically address the effects of an aggressive sibling, their depiction of the importance of modeling in learning would seem to imply that consistent exposure to aggressive models other than parents (such as siblings) may also effect aggressive behaviors in children.

Arnold et al. (1975) cite studies that have shown that siblings of aggressive boys also perform aggressive behaviors at high rates, and often provide the stimuli

that "trigger" the problem child's deviant responses. For example, Patterson's (1974) data strongly suggest that aggressive boys were raised in families comprised of aggressive family members and that of these family members, the siblings were found to be the most aggressive. Research findings of Arnold et al. indicated that in families where one child has been referred for treatment and has been identified as having a severe conduct disorder (the majority of subjects were aggressive boys while some engaged in stealing, truancy, or fire-setting), their siblings also showed marked evidence of deviant behavior. In fact, these researchers found no significant differences between the identified patients and their siblings in their rates of deviant behavior. Their sample consisted of 55 siblings of the 27 referred children three years of age or older. These results raised questions about the process by which a family comes to label one of its members rather than another as deviant.

Bank and Kahn (1983) also suggest that in those families where one child manifests considerable disturbance, it is likely that other children in the family will also be disturbed. They write:

Whether siblings tend to become disturbed because of common genetic factors, having been subject to the same parental influences, or whether the siblings have so influenced one another that both become troubled, the fact remains that siblings of seriously disturbed individuals run a higher statistical risk of being disturbed themselves.

(pp. 253-254)

Macfarlane et al. (1954) found that trends of aggressiveness were more the result of a child being subjugated by powerful siblings than the result of parental influences. Gerwitz (1948), however, subscribes to the patregenic theory, i.e., that differences in behavior of first-born and second-born children result from parental influences. Sears, Maccoby, and Levin (1957) are cited as having also initially conceptualized in terms of patregenic assumptions that adult permissiveness of aggression would systematically relate to the amount of aggression shown in the different ordinal positions. However, they later found that these two variables were not related and ultimately adopted a socio-structural formulation. They explain:

Relatively greater amounts of frustration and discomforting control in a family comes from the persons who are immediately above the child in the power hierarchy than from other family members, and regardless of the parent's permissiveness and punitiveness, the younger child tends to be more aggressive towards those persons. (p. 418)

Sutton-Smith and Rosenberg (1970), on the other hand, stress the importance of modeling in their explanation of levels of aggression in children of different ordinal positions. They propose that later-born children may simply be more aggressive in their nursery play because they have learned to relate to others in that fashion from their experiences with older siblings. While their studies focus primarily on characteristics which are specific to the sibling relationship, such as sibling

status effects, Sutton-Smith and Rosenberg allow that this does not account for the possibility that differential parental attention may also influence the character of a sibling relationship. They indicate that one cannot rule out parental influence as a determining factor and suggest that both aspects must be considered:

Although the studies...mainly deal with sibling-sibling interactions, and thus make the assumption that variations in patterns of sibling behavior are a direct outcome of the nature of sibling statuses, it is only in several studies dealing with interactions involving both parents and children that we actually begin to control for parent-sibling influences as well as sibling-sibling influences. (p. 18)

It has been shown that many researchers cited by Sutton-Smith and Rosenberg have found that younger children tend to be more overtly aggressive than their older siblings. While this may appear to refute Sutton-Smith and Rosenberg's (1968, 1970) findings that older siblings exert more physical power and dominance over their younger siblings, it must be noted that this aspect of Sutton-Smith and Rosenberg's research addresses sibling interactions and the impact of siblings on each other given the determinants of birth order and gender. The other writers cited have examined a child's individual characteristics and relationships in the world as influenced by his/her responses to a dominant older sibling. There is agreement among all of these researchers that the level and degree of aggression displayed by a younger sibling is most probably influenced

by the presence of a dominant older sibling. Whether the aggression in a younger sibling is a reaction to the pressure of dominant older siblings or is modeled after them, is an unanswered question according to Sutton-Smith and Rosenberg (1970).

To summarize the findings of Sutton-Smith and Rosenberg and those authors they cite, many studies suggest that later-born children are more affected by the characteristics of their older siblings than vice versa. Female siblings are generally found to be more significantly affected by male siblings than are males by females. Second-born girls with older brothers show a clear record of their influence. First-born children are seen to exert dominance and younger siblings show many forms of counterreaction which may include displays of aggression against the power tactics of older siblings (Sutton-Smith & Rosenberg, 1970). Finally, the sex character of a subject's sibling has effects on the subject's interest, preferences, abilities, behavior, and interactions with peers. These effects are most obvious in the case of younger siblings. Sutton-Smith and Rosenberg conclude:

By and large, the concepts of operant learning theory seemed to be most applicable to the development of affiliative, conforming, and achieving responses in only children and first-born, and the concepts of modeling theory to the development of sex role preferences and powers tactics in later-born... although the evidence appeared to imply that the later-born modeled extensively after the elder siblings, little data were available about the way in

which their behavior may have been operantly conditioned by their elder siblings. (1970, p. 157)

Other researchers have also discussed the sibling relationship as being determined by characteristics such as birth order, age spacing, and sex of sibling. Longstreth, Longstreth, Ramirez, and Fernandez (1975) describe the "older brother effect," which they define as personality characteristics that can be traced to the presence of an older brother. The authors suggest that older brothers appear to significantly influence both younger brothers and younger sisters. Both boys and girls with an older brother were found to have been influenced by the brother's masculinity, non-conformity, aggressiveness, and physicalness. The authors conducted a study on activity and passivity levels in younger siblings of older brothers. In this research, the most physically passive and most physically active students from kindergarten through 6th grade classes were chosen by their teachers to participate in the study. The researchers found that physically active students were more likely to have an older brother than were physically passive students. This effect was independent of sex, grade level, race, socio-economic status, and a variety of other sibling patterns and combinations. However, this result was found to be dependent on the relative age of the older brother. The spacing between older brother and younger sibling was examined at intervals of 0-2 years, 2-4 years, and more than four years, as well as at 0-3 and

more than three years. The older brother effect on physical activity and passivity levels was found to be equally strong at 0-2 years and 2-4 years but was entirely non-existent at more than 4 years. These results, then, partially contradict the earlier results of Sutton-Smith and Rosenberg (1970) that the maximum effect of an older brother occurred when the age spacing was 2-4 years.

Longstreth et al. (1975) point out that Sutton-Smith and Rosenberg's (1970) findings were based mainly on intellectual and dependency effects rather than on activity and inactivity effects so that the data of Longstreth et al. do not contradict a partial version of Sutton-Smith and Rosenberg's summary statement. The question of exactly how this older brother effect is produced is debatable according to the authors. They suggest that older brothers challenge younger siblings to be more physically active and daring, at least for children with brothers up to four years their senior. The authors further suggest that this effect may be related to shaping and modeling effects of the older brother himself, or to differential reactions of the parents or to a combination of these factors. They cite Sutton-Smith and Rosenberg (1970) who argue that an older brother can have a specific and direct effect on younger siblings which is separate and distinct from the effects of parents as suggested by the tendency for younger girls but not

younger boys to manifest problems with their self-esteem (Longstreth et al., 1975).

Pfouts (1976) studied the direct effect that brothers near in age have on one another. Her study is based on the Social Comparison Theory that the individual defines himself by comparing himself to relevant similar others. Pfouts suggests that brothers in middle-class, two boy families, particularly those close in age, rank themselves according to their comparative ability to meet a variety of standards both within and outside of the family. Thus, a child's attitude towards himself and others is dependent upon his own behavior and characteristics as well as on those of his siblings. The results of the study indicated that when brothers differ significantly in culturally valued characteristics such as IQ and personal and social adjustment, the less well endowed boy will show more hostility towards his sibling than will the more favorably endowed boy. The more able boy in the sibling pair will be less resentful and hostile but will feel ambivalent toward his less able sibling. Long-lasting problems with self-esteem and interpersonal relationships can be engendered, according to Pfouts, given these invidious comparisons.

Pfouts' findings therefore contradict those of Sutton-Smith and Rosenberg (1970) which stated that younger brothers do not tend to manifest self-esteem problems while younger sisters do. She emphasizes that

sibling rivalry for parental rewards is the primary factor in shaping the sibling relationship, thus contradicting the earlier cited theories regarding the primary significance of the effects of sibling status. Pfouts contends that powerful conflicts can also exist even in families where children feel equally loved and accepted. In these situations, sibling competition is still likely to flourish as each child struggles to define his identity and to establish status in his family and in the outside community against the standards previously set by older siblings. Pfouts proposes that as children develop and mature, the intersibling struggle for competence and status includes an ever-widening range of abilities and attributes while the struggle for parental rewards gradually subsides.

Arnstein (1979) similarly proposes that adolescence is a specific period in which sibling comparisons are heightened. She suggests:

During adolescence, when hormonal and physical changes occur along with new inner drives and consequent physical unrest, young sisters and brothers are even more vulnerable to the comparisons they feel impelled to make between themselves and another sibling. Even if it was far from so, many teenagers have seen themselves as ugly, clumsy, stupid, and ineffective in comparison to a sister or brother. (p. 32)

Bank and Kahn (1982) emphasize that power tactics used by first-born to dominate their younger siblings (i.e., hitting, reprimanding, teasing, ignoring) are primarily used in the service of differentiation. They suggest that birth order attributes can be of value "because they allow

children to feel different from, and often superior to their siblings at a point in development when the urge for a separate identity is of paramount importance" (p. 55).

Schacter, Gilutz, Shore, and Adler (1978) provide a psychoanalytic formulation of social comparison in the family. Like Bank and Kahn, they discuss the relevance of differentiation in the context of the sibling relationship. They suggest that by the age of six, children begin to experience themselves as different from their siblings and deidentify from each other as a defense against intense feelings of rivalry and competition. The authors present data which suggests that when the two siblings are the same sex, the rivalry and defensive deidentification are intensified. They conclude that after age six, when children enter the latency-age years, this deidentification process can promote an adaptive resolution to sibling rivalry, particularly in cases where the children are the same sex. Bryant (1982) cites Alfred Adler's (1928) notion that personality differences among siblings may in part be an expression of an underlying sense of competition, which is congruent with the findings of Schacter et al. (1978).

Suggesting that the relevance of middle childhood years has generally been overlooked by developmental researchers, Bryant (1979, 1982) has conducted a series of studies on the nature, extent, and developmental significance of sibling relations during middle childhood.

She proposes a view which differs from the aforementioned psychoanalytic formulations of social comparison in the family. According to Bryant (1982), parental attitudes towards children can lead to sibling comparisons which continue in middle childhood. She provides data which suggests that first born children are given preferential treatment when mothers interact with them in a private dyad, but are relatively neglected when a younger sibling is present. The latter situation can foster sibling rivalry in middle childhood. The anger and ill-will which can be experienced in the sibling relationship when parents demonstrate preferential treatment to one child, is seen in both children, not simply in the child who is receiving less parental attention and resources. This corroborates Bryant and Crockenberg's (1980) earlier findings that parents who prefer one sibling over another can influence patterns of hostile interaction between two siblings. It also emphasizes Sutton-Smith and Rosenberg's (1977) suggestion that differential parental attention may influence the sibling relationship, particularly when considered in combination with the effects of sibling status.

Bryant demonstrates that ambivalence appears characteristic of these relationships and that there is greater ambivalence among siblings who are closely spaced in age than among those who are widely spaced. This is congruous with the findings of Longstreth et al. (1975)

and Sutton-Smith and Rosenberg (1970) cited earlier. Cicirelli (1973) also discusses variables such as age spacing and sex of siblings as significant determinants in middle childhood. He suggests that children accepted help and were more comfortable in an dependency relationship with a sibling four years than with a sibling only two years older.

Bryant (1982) emphasizes that rivalry in the middle childhood years can stem from frustrated dependency needs, emotional struggles involving issues of sibling anger and identity, and competitive inference with regard to garnering parental and extrafamilial recognition and approval. She also discusses positive aspects of the sibling relationship during these years and posits that psychological closeness, supportive caretaking, direct instruction and facilitative modeling of developmental milestones can be beneficial experiences of the sibling relationship. Issues of dependency, particularly in terms of one's ability to receive help and one's ability to allow others to be dependent, are seen by Bryant to be partially learned during middle childhood years in the context of the sibling relationship. Similarly, mastery of the ability to resolve conflict is often frequently accomplished in middle childhood. The inherent inequality in the distribution of power and authority among siblings as well as the constraints of an ongoing, enduring familial relationship, make the sibling context

particularly conducive to the development of specific resolution skills, according to Bryant.

Hartup (1976) similarly suggests that aggressive encounters experienced in child-to-child relations are particularly relevant to sibling interactions. He found that the common aggressive encounters experienced in relations between children in a family are more important contributors to the development of successful control of aggressive motivation than aggressive encounters experienced in parent-child relations. In this context, it is interesting to note Bryant's (1979) findings that on six scales of the Cornell Parent Behavior Questionnaire (Devereaux, Bronfenbrenner, & Rodgers, 1969), older siblings were seen as more active in physical punishment aspects of caretaking than were parents.

Bigner's (1974) study suggests that generally speaking, older brothers were experienced as using their power to interfere, as opposed to older sisters who were viewed as using their power in a more helpful, gentle, and facilitating manner. However, younger brothers spaced very close in age to older sisters found them to be more interfering than did those younger brothers spaced widely from their older sister.

Arnstein (1979) found that competition for parental rewards is more evident in families where there are several children of the same sex and where the age difference is not too great. Arnstein also indicated that

hostility towards opposite sex siblings may result from a youngster's perception that his or her sibling received parental favoritism as a result of his or her gender. For example, if a mother is disappointed by her husband and attaches herself to her son in order to compensate for the lacks in her husband, a daughter may feel particularly jealous of her brother. A similar situation would arise in the case of a father finding his relationship with his wife unfulfilling and investing hopes in his daughter in order to satisfy feelings of disappointment. A son would, in this case, experience his sister's being favored as resulting from her being a girl, and would feel resentful. Arnstein writes that under these circumstances, the pattern of jealousy that arises can become impossible to break. She further indicates that considerable conflict can arise between siblings resulting from their envy of what their opposite sex siblings are permitted to do which they are not. The respective ages of the siblings may also play a role in the evolution of such conflict, as older children in a family are generally allowed more freedom than their younger siblings.

Like many of the researchers cited above, Arnstein (1979) also discusses birth order as a specific determinant of both individual personality development and sibling interaction. She delineates personality traits which are reported to be characteristic of first-born, second-born, middle, and youngest children. Arnstein

suggests, therefore, that birth order has an impact on the developing personality of individual children in a family, and indicates further that the interaction of these varying characteristics may significantly determine the quality of a sibling relationship.

Steinmetz (1977) studied sibling conflict in three sets of families: (a) young families (those consisting of children whose mean age is 8 or younger); (b) adolescent families (those consisting of children whose mean age is between 9- and 13-years); and (c) teenage families (those consisting of children whose mean age is 14-years or over). The author reported a greater frequency of sibling conflict in the young families, according to the written record of conflicts that occurred between siblings during a one-week period. However, parents who were interviewed frequently complained that in adolescence, especially early adolescence, their children seemed to get along poorly with one another and that conflicts persist. In her discussion of "Adolescent Families," Steinmetz reported that all adolescents "make faces" or "look funny" at each other. They tend to touch or pick at each other, pull hair, or tease. Major conflicts between children in this age group result from invading each other's personal space. The adolescents in the study tended to resolve conflicts by using verbal modes (discussing and arguing); the physical means of conflict resolution, more prevalent in younger children, diminish for this age group. Fewer

reports of sibling conflict were found in the teenage families. Steinmetz suggests that this may partially be due to the fact that teenagers are often more socially involved outside of the home. Thus, with less contact, there is less opportunity for conflict to arise. Also the conflicts in teenage families are described as centering around responsibilities, obligations, and differences of opinion that can be handled in a less volatile and more sophisticated manner. Steinmetz's results indicate, therefore, that with increased age, sibling conflicts are less likely to be settled with physical force, restriction, threats, or by ignoring the situation, and are more likely to be settled verbally (i.e., by yelling, arguing, making compromises, or discussing). Verbal aggression and discussion as conflict resolution methods increase with age and the children in the adolescent families were found to use these methods the most frequently.

Straus, Gelles, and Steinmetz (1980) corroborate Steinmetz's (1977) earlier findings. For example, results of their study indicate that while younger children may resort more frequently to physical violence because they have more difficulty resolving conflicts verbally, early adolescence is also a period of high confrontation of all kinds including whining, yelling, and hitting. They also found that while teenagers may be more aggressively verbal, they may also rely on their greater physical size

and strength to intimidate if not actually beat up on a sibling. These researchers compared violence rates for children of different ages in the national sample. Although they found a steady decline in the violence rates as children get older, they also found that even at age 15- to 17-years, almost two-thirds of American children hit a brother or sister at least once during the year, and for many it is not just one isolated incident. In fact, among those 15- to 17-year-olds who have been violent to a sibling, this tends to occur on an average of nineteen times a year (Straus et al., 1980). Many of these incidents involved petty violence such as pushing, slapping, shoving, and throwing things. However, the authors found that all acts of serious violence decreased as children entered the older age groups.

Straus et al. (1980) also studied sex differences as a determinant of sibling conflict. While it is widely believed that girls do most of their fighting verbally whereas boys tend more towards physical fights, the data in this study only barely supported the view. The authors state:

Although the expected difference between boys and girls is certainly there, the difference is much smaller. 83% of the boys attacked a brother or sister during the survey year, but so did 74% of the girls.  
(p. 87)

At all age groupings, however, the authors found the girls to be slightly less violent than the boys. Similarly, the results of Bandura et al. (1961) only partially confirmed

the view that since aggression is a highly masculine-typed behavior, boys should be more predisposed than girls to imitating aggression. However, they did find that boys reproduce more imitative physical aggression than girls, although the groups did not differ in their imitation of verbal aggression.

Straus et al. (1980) also report that girls use less violence than do boys irrespective of whether the girl has only sisters, only brothers, or both brothers and sisters. Finally, they suggest that the violence of boys who have only sisters is lower than for boys with brothers or with both brothers and sisters indicating, according to the authors, the apparent effect of girls on reducing the violence of their brothers.

In discussing sibling conflict in adolescence, many researchers have suggested that particular developmental changes occur in adolescence which may affect the sibling relationship. Bank and Kahn (1982), for example, have indicated that by the time adolescence begins, a child's jealous reactions to the birth of a sibling have usually subsided or been forgotten. They indicate that Yamamoto's (1979) surveys of children's fears confirm this finding.

Lamb (1982) emphasizes the mutual support that can characterize adolescent sibling relationships. He suggests:

Siblings commonly become primary confidants and sources of emotional support in preadolescence and these mutually important relationships usually persist well into adolescence and young adulthood. During

adolescence, when parents and children have difficulty communicating about emotionally laden issues such as sexuality and the use of recreational drugs, and friends of both sexes prove fickle and unpredictable, siblings provide the most reliable and consistently supportive relationship. (p. 5)

Lamb also suggests that the heterosexual sibling relationships may be especially important in adolescence and early adulthood when long-term sexual commitments are commonly explored for the first time.

Arnstein (1979), on the other hand, suggests that adolescent boys may withdraw from sisters with whom they have previously enjoyed comfortable, physically affectionate relationships. The author writes that increasing uneasiness about physical contact with sisters may be specifically related to the developmental changes which occur in adolescent boys:

Along with the marked physiological changes at puberty, including the tremendous surge in male sex hormones, a boy may be subjected to unwelcome and forbidden--to him--fantasies, some attached to his mother, and some, later to his sister. (p. 72)

Arnstein posits that as oedipal feelings and conflicts resurface at puberty, a sister may be found by her adolescent brother to be attractive and tempting. This may seem especially dangerous to him given her proximity. As a result, an older brother may need to psychologically distance himself from his sister and devalue her in order to make her presence safer for himself. Arnstein points out that this kind of withdrawal and devaluation can be devastating to a younger sister who may be attempting to

secure her brother's approval.

Several researchers have found, therefore, that in general, physical conflicts between siblings diminish during adolescence. It appears, however, that many adolescents continue to experience conflict and tension in relation to their siblings. This may be manifested by aggressive verbal interactions or emotional withdrawal and psychological distancing due to the threat of re-emerging oedipal and incestuous fantasies.

Many writers have discussed developmental considerations which may influence the sibling relationship. Bryant (1982) indicates that although few sibling studies have been designed to illuminate developmental changes occurring during middle childhood, there is a need to delineate specific developmental contexts in which sibling interactions unfold. She suggests:

The exact nature of the child's intrapersonal experience of sibling relationships may vary according to the particular developmental status of both the child and the siblings. The kinds of interpersonal exchanges within the family system experienced by the child throughout middle childhood may also affect the child's intrapersonal state. (p. 95)

Bryant suggests that middle childhood is a period of active development in which the integration of a variety of social and affective phenomena are accomplished. She suggests that depending upon the phase of middle childhood being experienced by one or more siblings in the family, sibling experiences may result in differing outcomes. For

example, conflict-resolution skills can be influenced by the younger-older dimension within sibling relations.

Legg et al. (1974) also emphasize the significance of developmental considerations. They discuss a trend in the research literature of too broad of an age grouping. They claim that this has lessened the possibility of a full recognition and study of developmental factors which may impact upon the sibling relationship.

Solnit (1983) discusses the significance of the developmental space between siblings as a major factor that normatively influences how the sibling experience is formed and unfolds. He discusses the relevance of the concept of partially shared developmental space. He suggests:

When siblings are separated in more developmental space, they may be living in widely separated developmental epochs (e.g., a 2-year-old and his 9-year-old sibling). Such siblings may still have a closer community of interests than either of them has with an adult, but their ease in communicating, empathizing, and identifying with each other is not nearly as great as in siblings who are developmentally close to each other. (p. 284)

Several researchers (Bank & Kahn, 1982; Kennedy, 1978; Yamamoto, 1979) suggest that a child's reaction to stressful experiences is dependent upon his stage of development. Kennedy (1978), for example, writes that the impact of potentially traumatogenic external events is dependent not only on the child's sex and position in the family but, also importantly, on his or her developmental level.

### Comparison of Studies

The present review has shown that there are inherent difficulties involved in comparing studies on the sibling relationship. This is evident in terms of both the form and content of this review. In terms of the formal structure, it may have occasionally appeared to the reader that the theoretical formulations, clinical research, case studies, and empirical research sections are at times overlapping and vaguely delineated. In fact, this reflects a lack of clear demarcation in the literature. Many of the empirical studies are clinical in nature and involve observational techniques (e.g., Bryant, 1982; Levy, 1936, 1937; Field & Reite, 1984; Sutton-Smith & Rosenberg, 1979; Taylor & Kogan, 1973). Similarly, the theoretical formulations in many cases (Adelson, 1972; Bender, 1953; Easson & Steinhilber, 1961; Freud, 1900, 1905, 1910, 1916-1917) derive from and are well illustrated by clinical case examples. Furthermore, this study has involved the exploration of a wide variety of material which may seem broad and, at times, loosely related. Therefore, the task of presenting the material in a concise and tightly organized fashion has proven to be difficult.

Regarding the content of the results of studies which have been summarized, clear comparisons have often been difficult to make for a variety of reasons. First of all, as noted briefly above (see page 57), one major impediment

in comparing the disparate and often contradictory findings is that some studies rate level and degree of aggression in individual children while others rate level and degree of aggression between siblings. Therefore, dissimilar methodologies present problems in comparing and contrasting results.

Another methodological problem which has been observed is that many researchers study the general phenomena of aggression without clearly differentiating physical from verbal manifestations of aggression. Rather, these two are not frequently distinguished so that differing effects of the two forms of aggression become blurred. This lack of specification leads to a difficulty perceiving discrete and subtle differences in the perpetration of verbally and physically aggressive actions.

Finally, as noted above, many researchers have not sufficiently accounted for developmental considerations which impact upon the sibling relationship. Several authors (Arnstein, 1979; Bank & Kahn, 1982; Lamb, 1982) have discussed adolescence as a stage when significant developmental changes occur which have a particular impact on the sibling relationship. Similarly, Bryant (1982) discusses phenomena which typically occur in middle childhood and influence the character of the sibling relationship. However, much of the literature has discussed characteristics of the sibling relationship without specifying the different developmental stages

youngsters are in, and without stressing the importance of these developmental factors. It is clearly necessary to attend to these developmental considerations if one is to fully understand the nature of specific sibling relationships.

#### Rorschach Assessments of Object Relations

Psychological testing research has documented the usefulness of projective tests in assessing characteristics of an individual's object experience. As Spear (1980) notes,

With the increasing emphasis among psychoanalytic theorists on the effort to develop an explanatory metatheory based on the day-to-day reality of an individual's interpersonal relations has come a new object relations perspective on the evaluation of psychological test data. (p. 321)

Recent studies have shown that the Rorschach Inkblot Test is a particularly valuable research instrument for assessing the quality of interpersonal relations and mental representations to which a person is predisposed. Krohn and Mayman (1974) hypothesized that the level of object representation is a valid, internally consistent, enduring dimension of the ego and should, therefore, emerge across a diverse set of the ego's productions. In their assessment of object representations based on dream reports of subjects, these authors indeed found that the level of object representation in dreams correlated highly with object representation scores derived from the subjects' Rorschach protocols. Hatcher and Krohn (1980)

similarly found in examining their patient's written dream reports, that the more primitive, bizarre dream images closely resembled the bizarre Rorschach percepts seen by the most disturbed patients. Thus, there appears to be agreement that "level of object representation" is a researchable variable which can be observed in a variety of projective productions. Hatcher and Krohn (1980) define "mental representations" as "those inner templates that determine the nature of a patient's experience of himself and objects" (p. 299). In discussing the relationship between object representation as registered in written dream reports and various ego psychological traits considered assets to a patient in psychotherapy, these authors enlarge upon the above conceptualization as follows:

The governing concept in this research is that during development, especially the development of the ego by means of its relationship with others during the first five years of life, there develop a set of internal structures that reflect the individual's early experience of important others, structures that we may very roughly call mental images of people. These structures filter, select, and organize the experience of other people and the actions, thoughts and feelings of the self. Thus, an individual's experience of others will only be as differentiated or varied as are the internal representations with which he can match them up. He will perceive and encode only what he has the mental representational 'language' to encode and will not perceive what he lacks the language to psychologically understand...the basic object representations determine the limits of his experience of others. (pp. 299-300)

Literature on the Rorschach demonstrates that these mental representations of the self and others can be evidenced in inkblot responses. Rorschach (1942)

suggested that the Human Movement (M) response is indicative of a capacity for rapport and empathy. Hertzman and Pearce (1947) noted that the content of human percepts in Rorschach responses can demonstrate an individual's internal repertoire of both self and object representations. Piotrowski (1958) saw "M" responses as indicative of the capacity for object-related involvement within relationships. Schachtel (1966) proposed that specific images were reflective of self-representational themes. Lerner (1975b) has summarized a wide body of research on the use of the Rorschach to assess interpersonal relations. He particularly emphasizes those studies or scales which consider the Human Content (H) response and the Human Movement (M) responses as demonstrating some facet of the interpersonal realm. Pruitt and Spilka's Rorschach Empathy-Object Relationship Scale (1964), for example, takes into account subtle, qualitative distinctions between different types of "H" and "M" responses as a means of quantifying object relatedness (Lerner, 1975b). In summarizing this aspect of the Rorschach literature, Lerner concludes that "H" is generally seen as being reflective of social interest and maturity in one's present or potential relations. "M" responses are seen as indicating an openness and sensitivity to self and others. Lerner further suggests that the "M" response demonstrates a capacity for empathy and object attachment. In addition, this extensive survey

indicates that high M producers are capable of exercising delay, have a temporal perspective, are aware of their inner world, perceive control as originating from within, demonstrate cognitive complexity and the capacity for fantasy, and can view the external world discriminately. These potentials are seen to provide a base for a humanized interpretation of the world.

The above researchers have primarily utilized the quantity of "H" and "M" responses in their assessments of interpersonal relationships. The writings and empirical work of Blatt, Brenneis, Schimek, and Glick (1976), Mayman (1967), and Schachtel (1966) have raised questions about the sufficiency of this research approach. Mayman (1967) and Blatt et al. (1976) in particular have sought to emphasize qualitative aspects of Rorschach responses rather than simply examining the correlates of the quantity of responses. Thus, they have more broadly conceptualized the quality of object representations by means of the Rorschach. Blatt and his colleagues have focused on formal, structural aspects of human representation such as differentiation, articulation, and integration in their effort to determine the quality of object representations. Mayman, on the other hand, took an ego-psychoanalytic approach in which he addressed thematic content dimensions of human responses such as whether percepts were seen as warm, friendly, and mutually cooperative, or destructive, decaying, malformed, weak or

inanimate. Mayman's work appears to have laid an important foundation for the theoretical formulations put forth by later researchers such as Hatcher and Krohn cited above. Mayman (1967) suggests:

There is reason to believe that a person's fund of internalized images of others, that is, of human 'object representations', and the feelings tied up in these images, bear the imprint of his formative interpersonal history, and reveal something of his ingrained relationship predispositions. If we assume that a person's Rorschach images comprise a somewhat representative sample of internalized objects then they have much to tell us about the person's internalized sense of participation in or alienation from his social milieu, as well as his preferences and expectations regarding the composition of that milieu. (p. 18)

Thus, Mayman proposes that a person's most readily accessible object representations evoked under the unstructured conditions of the Rorschach, can evidence much about this inner world of objects and about the quality of relationships with those inner objects toward which s/he is predisposed.

Mayman's emphasis upon qualitative aspects of thematic content as indicated of the subject's level of object relations provided a significant framework for later conceptualizations of the individual's sense of self and his/her repertoire of relationships as seen on the Rorschach. Urist (1976), for example, suggested that while Rorschach "M" responses indicate "an awareness that others experience self-hood, too," they do not "imply the ability to correctly perceive others or to differentiate one's inner state from an other" (Tuber, 1981, p. 39).

Therefore, according to Urist, the ability to perceive "M" responses does not necessarily suggest the capacity for high level object relations. Urist (1977) devised a scale to qualitatively rate object relations as perceived on the Rorschach, thereby differentiating "good" and "bad" object representations. His scale is based upon the premise that

Individuals tend to experience self-other relationships in consistent, enduring, characteristic ways that can be defined for each individual along a developmental continuum. This continuum corresponds to the various stages in the development of object relations, ranging from primary narcissism to empathic object-relatedness. (p. 3)

It has been shown that use of the Rorschach to assess object relations, has largely involved the production of human movement responses. Given that pre-adolescent children typically tend to produce a moderate number of "M" responses, the application of the Rorschach to the assessment of object relations in children would appear to be limited. In fact, Urist (1977) initially developed his Mutuality of Autonomy scale for use in the assessment of the Rorschach's of adults. However, Urist's scoring system rates not only "M", but also animal and inanimate movement responses more typically provided by children. This system has proven to be useful in assessing the level of object representations of children and adolescents and has been found by several recent researchers to be easily applied to children's Rorschach's with good interrater reliability (Meyer, 1985; Ryan et al., 1985; Tuber, 1981, 1983; Tuber & Coates, 1985). Tuber's (1988) manual, in

particular, elaborates upon Urist's scale, providing valuable information on scoring criteria and nuances derived from Tuber's use of the scale with children. It therefore seems possible to use this scale to assess the object representational repertoire of the present sample of latency-aged girls who have adolescent older brothers.

#### Rorschach Assessments of Aggression and Hostility

The Rorschach has also been used as a research instrument to assess aggression and hostility. Silverman (1963) addressed the question of the relationship between manifestations of aggressive imagery and thought disturbance in Rorschach responses, comparing the records of adult schizophrenics and adult medical patients. He found that for both groups, responses involving blatant aggressive imagery were significantly more apt to be accompanied by manifestations of thought disturbance than responses involving mild aggressive imagery. He formulated the following conclusions:

The greater the amount of aggressive imagery in a Rorschach record, the less successful has the individual been in neutralizing aggressive drive energy and if certain other conditions are also met, the more likely is he to manifest thought disturbance...At the point in time that an aggressive urge has been aroused to the level in which it is reflected in a Rorschach response, if other necessary conditions are met, it will disrupt thinking and lead concomitantly to a manifestation of thought disturbance. (p. 343)

Murstein (1956) found a positive relationship between aggressive actions and aggressive imagery on the Rorschach for overtly aggressive subjects who are insightful, but he

found no such relationship for subjects who are hostile but not insightful. Smith and Coleman (1956) sought to investigate the nature of the relationship between overt hostility in the normal classroom behavior of children and the hostile content they produce in their Rorschach and Make a Picture Story (MAPS) protocols. Their findings suggest a curvilinear relationship; high and low amounts of Rorschach hostile content were associated with low overt hostility whereas middle amounts of hostile content were associated with high overt hostility. Townsend (1967) studied the relationship between behavior ratings and Rorschach signs of aggression in boys in residential treatment. The author found that while the indices of aggressive impulses such as aggressive content were not significantly related to aggressive behavior, the more structural indices considered to measure impulse control (presence of "CF" and absence of "M" responses) were significantly related to the behavior ratings.

In a study addressing the relationship between projective test indices of aggression and overt aggressive behavior, Haskell (1961) hypothesized that different test indices of aggression are differentially related to different criteria of overt behavior. While results supported the idea that the T.A.T. was found to be related to more direct expression of overt aggression, the Rorschach was primarily found to be related to their therapists' more subtle clinical ratings of hostility. In

other words, Haskell found no relationship between aggressive Rorschach content and overt aggression. Hafner and Kaplan (1960) found an inconsistency in the way in which a person responded to the Rorschach and T.A.T. in regard to hostility. However, the Rorschach correlations between overt hostility and weighted scale scores, and the overt and covert hostility scales, were all positive and significant.

Megargee and Cook (1967) investigated: (a) the relationship of aggressive content on projective tests with overt aggression, and (b) the relationship between apperceptive projective tests such as the T.A.T. and MAPS, and projective techniques such as the Rorschach and Holtzman Inkblot Test. Their results were discouraging regarding the possibility of predicting overt aggression from test scores in individual cases. These authors suggest that the use of projective instruments to predict aggressive behavior is limited and must be approached with caution.

In sum, investigations into the relationship between verbal or physical aggression and aggressive or hostile Rorschach imagery has yielded varying results. Some researchers have shown a direct relationship, while others have suggested an inverse relationship or no relationship.

Several Rorschach scoring systems have been devised by researchers to specifically assess aggression or hostility. Elizur (1949) developed the first well-known

Rorschach scale to measure motivational variables quantitatively. He devised a method for measuring anxiety and hostility in the manifest content of Rorschach responses. Elizur's findings generally indicated that the Rorschach score was found to correlate well with overt behavior and symptoms inferentially linked to aggression. While Elizur's scale provides three possible scores for hostile manifestations (strongly present, present, or absent), Murstein (1956) devised a Rorschach scale which provided a seven-point scoring system delineating more discrete differentiations for the intensity of hostility in each response. Holt (1966) developed a scale which measures both libidinal and aggressive manifestations in Rorschach responses.

The present study does not address the presence or absence of overt aggressive behavior as indicated by Rorschach responses. It does, however, seek to explore whether the aggression of an older sibling might promote aggressive or malevolent internal experiences of object relations in the subjects. Urist's (1976) Mutuality of Autonomy Scale scores a range of Rorschach responses reflective of a subject's inner experience of malevolence and hostility in relation to others. The scale also rates those responses which are devoid of such aggressive perceptions and instead, reflect mutuality and cooperation in addition to a variety of responses which fall in between these two extremes. For this reason, the Urist

scale has been chosen to assess the possible internal aggressive experience of the subjects in this study.

#### Summary and Present Hypotheses

In the preceding review, various facets of the literature on the sibling relationship have been discussed. It has been shown that most writers concur that sibling interactions can importantly influence personality development in childhood. However, many agree that there are notable gaps in this area of research, and contend that further delineation of the nature of the sibling relationship is necessary. Several authors have suggested that research is needed to provide more information about sibling relationships in middle childhood and adolescence (Bryant, 1982; Colonna & Newman, 1983; Irish, 1964; Lamb, 1982). Bryant, for example, points to the dearth of studies that directly contrast sibling experiences in early childhood with those in middle childhood and adolescence.

Existing literature on both sibling relationships and child abuse, while addressing an increasingly wide range of issues, has neglected to address the frequent experience of a younger sibling in relation to a physically or emotionally abusive older sibling. Despite Freud's (1900, 1916-1917) suggestion that younger siblings must harbor intense feelings toward their powerful and dominant older siblings, few studies have actually documented the ways in which this is manifested.

Researchers who have studied violent and physically abusive actions towards siblings suggest that greater attention must be paid to the serious psychological consequences which such abuse can engender in the abused sibling (Bordin-Sandler, 1976; Reidy, 1980; Steinmetz, 1977; Straus, Gelles, & Steinmetz, 1980; Tooley, 1975). While the existing studies document a variety of modes and degrees of physical abuse between siblings, as well as possible dynamic determinants, strikingly few studies have explored more subtle forms of psychological interactions with siblings. It may be that these are more difficult to observe, define, reliably measure and quantify.

In the recent abundance of object relations studies, writers have emphasized the role of parental influences in the child's development of internal object experiences. However, a neglected area of study has been how sibling relationships can impact upon developing internal object experiences. As Neubauer (1982) has suggested, the emphasis on the one-to-one relationship of mother and child in the development of early object relations must be widened to include fathers and siblings.

It is hoped that the present study will serve to augment the existing literature in several respects. First of all, psychoanalytic and object relations theories have documented the effects of parents on their children's internal experiences. However, it has been shown that few studies have considered the effects an older sibling can

have on the intrapsychic experience of a younger sibling. It has been shown in the review of the literature that most studies have focused on the personality characteristics and overt manifestations of behavior of younger siblings resulting from interactions with an older brother or sister, rather than addressing questions about their deeper experiences. A majority of the research, then, has not discussed inner experiences of a youngster based upon his or her relationship to an older sibling. However, a number of recent studies (Pfouts, 1976; Sutton-Smith & Rosenberg, 1970) have convincingly argued that an older brother indeed has a significant impact on the development of his younger sibling's self-esteem. The present study, in keeping with that line of thinking, proposes to explore how sibling relationships can influence developing internal object experiences.

Secondly, the Rorschach Inkblot Test has been used to assess the impact of one's past history of interpersonal experiences on current object experiences (Blatt et al., 1976; Hatcher & Krohn, 1980; Krohn & Mayman, 1974; Lerner, 1975b; Mayman, 1967; Meyer & Caruth, 1965; Pruitt & Spilka, 1975; Spear, 1980). The existing studies of object relations as assessed by the Rorschach have particularly emphasized the impact of early experiences in relation to parental figures. The Rorschach has also been used to assess the inner experience of aggression and hostility (Elizur, 1975; Holt, 1975; Lerner, 1975a).

Thus, utilization of the Rorschach to assess whether interactions with a sibling, particularly those interactions of an aggressive nature, may have a specific impact upon internal object experiences of a child will augment the existing literature on the development of object relations. It will also hopefully serve to expand the application of the Rorschach test as a research instrument.

Finally, this study proposes to specifically study the experiences of younger sisters as a result of their relationships with older brothers. Research studies, as well as commonly accepted cultural and social assumptions, have indicated that aggression is considered a highly masculine-typed behavior. However, Bandura et al. (1961) found that girls do show a tendency to imitate verbally aggressive models. Similarly, Straus et al. (1980) indicated that a surprising number of girls showed physically aggressive behavior towards a brother or sister during the year of their survey. Nevertheless, relatively few studies have addressed the inner experience of aggression in young girls. I am particularly interested in evaluating whether exposure to an older, aggressive male model may predispose a young girl to malevolent and aggressive inner object experiences and, if so, how they may be manifested.

Given these points, the study will test the following hypotheses:

1. The Rorschach protocols of latency-age girls whose older brothers are rated by their mothers as relatively more aggressive, will be characterized by more frequent themes of domination, control, or victimization of one figure by another. More specifically, in comparison with a group of girls whose mothers report less aggression in the older male siblings, their Rorschachs will show a greater incidence of malevolent or toxic object representational scores as measured by the Urist Mutuality of Autonomy Scale.
2. In some of these aggressed-upon girls, the impact of a malevolent brother will contribute to a marked constriction in their experiences of object relations. Thus, in comparison with the sisters of the less aggressive boys, these youngsters will have Rorschach scores characterized by significant constriction manifested by a lack of both affective and human responses as measured by the Klopfer scoring system.

## CHAPTER II

### METHOD

#### Sample

The present study employed a sample of twenty-four brother and sister pairs. Each pair included an adolescent boy, aged 12-16 years, and his younger, latency-aged sister who was between 7 and 10 years of age. All brothers and sisters lived at home. While the boys had in many cases been referred to clinics for psychotherapy, the younger sisters had specifically not been referred for treatment. Although some of these girls may have participated in family therapy sessions, in no case were they the identified patient. Similarly, none of the girls in the study attended special schools. Rather, they were enrolled in regular public or private schools.

Younger sisters of adolescent brothers were sought in several settings. The primary source was the Madeleine Borg Community Services of the Jewish Board of Family and Children's Services (J.B.F.C.S.). Subjects were also recruited from the West Side School, a J.B.F.C.S. day treatment program for emotionally disturbed boys. I obtained the permission of the Research Committee of the J.B.F.C.S. agency to request that families who receive services of the agency participate in the study. I then

presented my research proposal to the staffs of approximately 15 clinic settings within the agency. At these meetings I requested that workers who treat adolescent boys who have younger latency-age sisters living at home provide me with the case names, of whom I then evaluated the diagnostic and demographic characteristics. If they were deemed appropriate for the study, the case therapist was asked to: (a) distribute to the mother an Information Sheet (see Appendix A) which described the purpose of the study and explained what participation would involve; and (b) indicate to the mother that the researcher would telephone her in order to answer any questions and discuss her willingness to participate. In cases where the mother was agreeable, an appointment of approximately 1-1/2 hours was arranged for the researcher to meet with her and her daughter in order to collect the data. These testing sessions were held at the J.B.F.C.S. clinics which the families attend for their ongoing treatment. The researcher met privately with the girl to administer the tests while the mother completed the questionnaires in the waiting room of the clinic.

In addition to the aforementioned J.B.F.C.S. sources, a non-clinic population of subjects was recruited. A private New York high school was approached with a presentation of this research project and I was given permission to contact families of children enrolled in the school. In cases where a high school boy in the

appropriate age range had a younger sister, also of the required age, the researcher sent a revised copy of the Information Sheet (see Appendix B) and a letter of authorization from the guidance department of the school (see Appendix C) to the parents. Parents were requested to return a tear-off slip to the researcher, indicating their willingness to participate. In cases where parents agreed to take part in the study, they were contacted by telephone and the researcher arranged to meet with the mother and daughter to collect the data. In these cases, meetings were scheduled at the subject's homes at times when other family members were absent, so as to provide a testing environment as free of distraction as possible. In all situations, the researcher arranged to meet with the daughter for an uninterrupted period of time (usually between 1 and 1-1/2 hours), in a room in the home that was quiet and private. At the same time, the mother completed her materials in another room in the house.

Subjects were also sought from a private Manhattan school which specializes in teaching children with learning problems. The administration of the school contacted families in which there was an adolescent boy enrolled in the school and a younger, latency-aged sister in the appropriate age ranges. In three of these cases, the parents agreed to participate and authorized the school to provide their names to the researcher. The mothers were contacted by telephone and appointments were

scheduled to meet with the mother and daughter in their homes in order to collect the data. In these cases, the sisters attended regular public or private schools.

Finally, one mother who is employed as an administrator at one of the schools mentioned above expressed interest in the study and volunteered to participate, as her son and daughter fell into the appropriate age range. She also provided the researcher with the name of a friend who similarly had an appropriately aged son and daughter, and had expressed interest in the study. In both of these cases, the mothers preferred to bring their daughters to the researcher's J.B.F.C.S. office rather than conducting the meetings at their homes.

As indicated above, demographic data were collected on all families who participated in the study. This information was taken from clinic records in the cases of subjects who had been sought in the clinic population. Non-clinic families were asked about the significant demographic variables directly. These factors included ethnic background, socio-economic status, schools attended by the subject and her brother, and family constellation (presence of siblings and their ages, as well as whether the father lived in the home, and if not, how much contact he had with the family).

A number of researchers have commented on the fact that socio-economic status (SES) may directly affect the

manner in which a person may express his/her psychological characteristics, including aggression (Davis, 1941; Hollingshead & Redlich, 1958; Langner & Michael, 1963; Leighton, Clausen & Wilson, 1957; Maccoby & Gibbs, 1954; Spinley, 1953). No previous research was found to address the question of how SES may specifically influence aggressive interactions between siblings. Given the fact that subjects in the present study were from families of varying SES backgrounds, and because SES was considered to be a potentially confounding factor in this study, attempts to control for this variable statistically were made whenever possible so as to minimally confound the results.

The researcher ruled out cases for the study in which there had been any history of severe psychopathology or psychiatric hospitalization in either of the parents, physical abuse between the parents, or a history of child abuse. In addition, cases in which there had been reported or suspected instances of sexual abuse of the girls (either by a brother or a father) were ruled out in the final sample. Therefore, the above variables have hopefully minimally confounded the final results of the study.

All mothers signed forms providing their informed consent to participate in this study. Informed consent forms differed slightly, depending upon whether the subject was from the clinic or non-clinic population (see

Appendices D and E).

### Research Design

A post-hoc design was used to divide the 24 brother and sister pairs into two groups. All of the brothers were rank-ordered as to the degree of aggression displayed in relation to their respective sisters. Several attempts were made to create two groups by rank-ordering the level of aggression in the boys as reported by their mothers. One approach was to utilize the data generated by the Achenbach Child Behavior Checklist (Achenbach & Edelbrock, 1983; see Appendix F). Another approach was to utilize the "Parent Questionnaire" which was designed to assess the degree of aggression displayed in each specific brother and sister pair (Appendix G). Scales to quantify the data derived from both of these questionnaires were devised in order to assess the degree of aggression of each brother. The development of the scales will be more fully described in Chapter III.

### Instruments

All mothers completed a Child Behavior Checklist on both their son and daughter. They also completed a "Parent Questionnaire." The daughters were administered the Rorschach Inkblot Test, the Peabody Picture Vocabulary Test-Revised, Figure Drawings of a boy and a girl, and the Sister Questionnaire.

The Child Behavior Checklist on the daughter was requested in order to control for severe behavior difficulties or psychopathology which could be confounding variables in the girl's performance on the Rorschach test. The mother's completion of the Achenbach on their daughters also provided data regarding possible symptomatic behaviors in the girls. Subsequent to the division of the total population into the two groups, groups were compared in terms of presence and degree of the girl's symptomatic behaviors so as to assess differences. While the emphasis of the present study was to evaluate the girl's inner objective experiences in relation to their brother's external behaviors, the data provided by the girl's Achenbach also made it possible to compare their symptomatic behaviors with those of their brothers and with other relevant variables.

#### Achenbach Child Behavior Checklist

The Achenbach Child Behavior Checklist (CBCL) is a questionnaire comprised of a series of 113 questions designed to record in a standardized format the social competencies and behavioral problems of children aged 4-16 years, as reported by their parents or parent surrogates. The checklist was designed to provide standardized descriptions of behavior rather than diagnostic inferences. Thus, high scores on the descriptive dimensions of behavior problems were not to be the sole basis for conferring a particular diagnostic label or

inferred disorder upon a child.

In order to identify syndromes of behavior problems, Achenbach and Edelbrock performed principal components analyses on CBCL's completed by parents of children referred to a wide range of outpatient mental health clinics. In an attempt to reflect age and sex differences in the prevalence and patterning of behavior problems, separate principal components analyses for children of each sex at ages 4- to 5-years, 6- to 11-years, and 12- to 16-years were performed. The authors chose these particular age ranges because they were seen to mark important transitions in cognitive, physical, educational, and/or social-emotional development. Within each sample, the frequency with which parents recorded each item was tabulated. Any item that was endorsed by more than 5% of the sample was included. Achenbach and Edelbrock found that the individual questionnaire items seemed to cluster around a number of syndromes or characteristics. Items which tended to occur together and represented a particular characteristic comprised separate matrices which form distinct behavior profiles for each age grouping. For the purposes of the present study, Achenbach and Edelbrock's profiles for 6- to 11-year-old girls and 12- to 16-year-old boys were used.

In addition to the behavior problem matrices described above, Achenbach also defined two broad-band groupings which were labeled "Internalizing" and "Externalizing"

behavior styles. These two groupings reflect a distinction between fearful, inhibited, overcontrolled behavior, and aggressive, antisocial, undercontrolled behavior. Although the Internalizing and Externalizing groups reflect contrasting types of behavior, they are not mutually exclusive. In addition, five of the six matrices include a "Mixed" Syndrome Scale in which certain behavior problems are scored within both Internalizing and Externalizing Groupings. In the present study, the "Aggressive" and "Hostile Withdrawal" indices (Externalizing and Mixed Scales, respectively) were used in determining the degree of the brother's aggressive behaviors. These scales were deemed to best describe the kinds of aggressive behaviors most relevant to this study. The "Delinquent" matrix, which initially also seemed a relevant subscale to consider, was ruled out for inclusion because an insufficient number of mothers scored their sons as having delinquent behaviors above the normal range. The sum scores on the "Aggressive" and "Hostile Withdrawal" scales were combined into a total score that was used as one method of determining which group, more aggressive or less aggressive, the subject was a member of.

As noted above, the CBCL is comprised of 113 questions which describe a broad range of behaviors. For each item that describes the child's behavior currently or in the past six months, the parent was asked to circle the

correct response: 0 = Not true (as far as you know), 1 = Somewhat or Sometimes True, and 2 = Very True or Often True. The items collapse into subscales which have been standardized and named for the behavioral syndrome that they measure. Individual items within each subscale are added to yield a total score for each scale. In addition, a total behavioral problem score was computed by adding the scores of 1 and 2 on the CBCL. As individual items from each subscale were also tallied within the Internalizing or Externalizing categories described above, Sum Internalizing and Sum Externalizing Scores were also computed. All scores for each subject were compared against the norms established by Achenbach and Edelbrock. The CBCL and Child Behavior Profiles are reproduced in Appendix F.

#### Parent Questionnaire

A questionnaire was designed to assess the degree of aggression displayed in each specific brother sister-pair (see Appendix G). The questionnaire, completed by all mothers, attempted to specify and describe discrete instances of hostility manifested by each brother toward his sister as viewed by the mother. Thirty-eight questions were asked, and answers were presented via a 5-point Likert scale. Respondents were asked to indicate how frequently each behavior occurred within the past six months. Degrees of abuse and aggression were determined by the responses to questions which fell into the

following four general categories: (a) verbal aggression; (b) physical aggression; (c) emotional neglect or abuse which is neither verbal nor physical; and (d) behaviors which appear primarily competitive in nature. Clearly, these categories overlap in many cases, and the behaviors which characterize them are not necessarily discrete or separate. However, they are delineated here in order to demonstrate a range of qualitative behaviors which the questionnaire attempted to tap in each brother-sister interaction. Within each category, questions covered varying levels of intensity. For example, questions about verbal aggression included examples ranging from: (a) mild teasing and joking to (b) cursing or shouting, to (c) taunting, bullying, and threatening in a more hostile manner. Similarly, questions about physical aggression were formulated to include mild forms of physical provocation such as tickling and wrestling, as well as more abusive physical attacks such as hitting or kicking. The third area of more general emotional abuse which is neither primarily verbal nor physical in nature, includes behaviors in which the brother excludes, ignores, or rejects his sister. Finally, while competitive impulses and behaviors need not be seen necessarily as manifestations of aggression or abuse, they can, depending upon the quality and the degree, be aggressive in nature. Therefore, a category of questions was designed to assess how competitive the brother was in games and in his

competitive feelings with his sister regarding parental attention and nurturance.

In addition to the questions which addressed the range of aggressive behaviors, the questionnaire also sought information about the incidence of affectionate verbal or physical contact, such as whether the brother compliments, praises, hugs, or kisses his sister. These questions were included so as to determine a thorough range of the quality of interaction between the brothers and sisters. The questionnaire also included several questions about the girl's characteristic style of reaction to her brother's provocations, and whether she responded in a primarily active or passive fashion. Four additional questions addressed instances of the daughter's provocation of her brother. One final question was included which surveyed the mother's observation of the interaction between the two children. She was asked to briefly comment in paragraph form on any behaviors which strongly characterized the relationship between her son and daughter, which had not been specifically addressed in previous questions.

#### Rorschach Inkblot Test

The Rorschach Scales. As indicated above, Rorschach protocols used in this study were scored according to both the Klopfer et al. (1954) method and the Urist (1977) method of assessing object relations. The Klopfer method of scoring the Rorschach has been described elsewhere

(Klopfer et al., 1954) and will not be described in detail here. However, given the second hypothesis proposed in this study, i.e., that the impact of a more malevolent brother will contribute to increased constriction in the sister's experience of object relations, it was necessary to attend particularly to Rorschach scores which may indicate the experience of constriction. Several of the primary conceptualizers of the meanings of Rorschach determinants have suggested that many of the determinants either alone or in combination, reflect constriction in various aspects of a person's emotional development (Allison et al., 1968; Ames et al., 1974; Klopfer et al., 1954; Rapaport et al., 1968). There appears to be a broad consensus that characteristic scores do indeed commonly occur in the records of persons who demonstrate emotional constriction. These can include the following: High Form %, High Animal %, a high number of popular responses and conversely, a low number of total responses, as well as fewer responses using color, human movement, and animal movement. Thus, these scores were carefully evaluated when the data were being analyzed.

The Mutuality of Autonomy Scale developed by Urist (1977), and later applied to children's Rorschachs by Tuber (1981, 1988), is a Rorschach scoring system developed to delineate qualitatively discrete and significant object representational paradigms. It was used in the present study to rate the level of a subject's

object representations as seen on the Rorschach. Urist suggests that, "...th(is) Rorschach scale grows out of the assumption that the portrayal of relationships between both animate and inanimate figures on the Rorschach ought to reflect the individual's experience and definition of human relationships" (Urist, 1977, p. 4). The scale focuses on the developmental progression towards separation-individuation. The issue of the autonomy of others in relation to the self and, conversely, the autonomy of the self in relation to others is particularly emphasized in this scale. Each scale point refers to gradations "in the individual's capacity to experience self and other as mutually autonomous within relationships" (Urist, 1977, p. 4).

Scale point 1, the highest level of object relatedness in the scale, reflects the depiction of a figure(s) involved in a relationship or activity in which reciprocal, mutual acknowledgement of each figure's respective individuality is conveyed. The percepts are separate and autonomous but, at the same time, aware of and interacting with each other. (For example:<sup>1</sup> Card VII: Two angels that are flying and playing in the air with each other.) A scale score of 2 is achieved when the figure(s) are seen as engaged in parallel but distinct activity. While there is no expressed emphasis on

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<sup>1</sup> Unless otherwise indicated, all examples reported are taken from the Rorschach protocols of subjects of this study.

mutuality or reciprocity, neither is this dimension necessarily compromised. (Example Card VIII: Two ferrets climbing up a hill.) As Tuber notes (1988), scale points 1 and 2 are given a positive valence; they are the only scores in which the autonomy of the figures is not distorted. Tuber suggests that they may, therefore, be seen as representative of "neurotic" or higher level object representations. Scale points 3 and 4 refer to Rorschach imagery depicting an increasing loss of autonomy in interaction. Both points "imply the need for another figure to permit a sense of structural cohesion to exist" (Tuber, 1988). To receive a scale score of 3, figures are perceived as leaning upon one another, or one figure is seen as leaning or hanging on another. Here, objects do not "stand on their own two feet" but, rather, they require some external source of support or direction (Urist, 1977, p. 5). While the autonomy of one figure is dependent upon the availability of another figure, there is nevertheless a sense that there are two separate beings. (Example: Card I: Two birds hanging off a bell... attached to the bell like they could fall.) Scale point 4 is scored when one figure is seen as the reflection or imprint of another. In contrast to scale point 3, a score of 4 implies the presence of only one figure in reflection, rather than two separate figures. (Examples, Card IV: It looks like the shadow of a dog; or Card VII: A young girl looking at herself and smiling in

the mirror.) Tuber suggests that points 3 and 4 share a depiction of the self in which narcissistic issues are pivotal. The difference between them can be seen in the extent to which the mirroring, cohesion-building "other" can maintain a degree of physical viability (Tuber, 1988).

Scale points 5, 6, and 7 reflect not only the loss of the capacity for separateness, but increasing malevolence of one figure towards another. These scores represent an experience of object relationships in which the autonomy of the self is, to an increasing degree, under siege (Tuber, 1988). Thus, responses which receive these scores will be given particular attention in the present study as they demonstrate the experience of hostility or malevolence in object representations. A scale point of 5 is scored when the nature of the relationship between figures is characterized by a theme of malevolent control of one figure by another. Urist (1977) indicates that themes of influencing, dominating, casting spells, or hurting may be present. (Example, Card III: They're stiff puppets who are being controlled by people who have sticks up here; or Card X: It looks like a crab because it has snappers and it looks like they're snapping someone.) A scale point of 6 implies not only a

severe imbalance in the mutuality of relations between figures, but here the imbalance is cast in decidedly destructive terms. Two figures simply fighting is not 'destructive' in terms of the individuality of the figures whereas a figure being tortured by another, or an object being strangled by another are considered to reflect a serious

attack on the autonomy of the object. (Urist, 1977, p. 5)

Thus, a score of 6 conveys an imbalance in the relationship in terms such that the integrity of one figure or object is destroyed by another. Relationships portrayed as parasitic are also included in this scoring category. (Example, Card I: A bat who looks like he's been hurt because of the holes in his wings. Maybe he was shot by something or eaten by a bigger animal but mostly he was killed by a person.) Finally, a scale score of 7 is given when relationships are characterized by being overwhelmed by overpowering or enveloping forces completely beyond their control. (Tuber's 1988 example, Card IX: This is something being consumed by fire, can't even see what it is, just the color of fire.)

Tuber summarizes that while points 3 and 4 may be tentatively linked to "narcissistic" disturbances in Kohut's terms, the final 3 points of the scale refer to "borderline" or "psychotic" modes of experiencing others. Representations of self and others are therefore avoided entirely or depicted as experiences of malevolence, depletion, destruction, and disintegration (Tuber, 1988). For a more detailed explanation of the scale, and further examples, see Urist (1977).

Urist used Spearman product moment correlation coefficients to compare his Mutuality of Autonomy measures with independent criteria. He noted that the use of the

product moment correlation assures equal interval data. Urist employed the Lingo and Rookman (1971) transformation of raw scores method to his data, thus, statistically creating an equal interval scale and allowing for the use of parametric statistical procedures. He calculated five object relations "scores" from his scale. These included a mean score, the average of the eight highest and eight lowest scores as well as the single highest and lowest individual scores. Tuber (1981) has reported that the use of this scale in previous studies involving child populations has necessitated a slight variation, as children have not been found to provide a sufficient number of Urist scores to allow for averaging their eight highest and lowest scores separately. Therefore, the present study utilized the total number of object relations scores (Total O-R), the single highest object relations score (H-O-R) and the single lowest score (L-O-R) per protocol. In addition to these three scores and the mean score suggested by Urist, the median and the mode scores were calculated from the total responses scored on the Urist scale. These scores were included so as to allow for broader comparisons between the salient Urist Object Relations scores and the other variables being analyzed.

Administration and Inquiry. The Rorschach Test was administered to all girl subjects in the manner described by Klopfer et al. (1954). In addition to Klopfer's

standard method of administration and inquiry, an elaborated form of inquiry was undertaken based on Tuber's (1988) application of the Mutuality of Autonomy Scale (Urist, 1977) to children's Rorschachs. The Rorschach was specifically used in this study to assess the impact of a boy's aggression on his younger sister's object experience. Tuber's elaboration of the standard form of inquiry facilitates a fuller determination of the quality of a subject's object representational world. As Tuber (1988) indicates, the inquiry is geared to "deriving an adequate description from the subject of the nature of his object representational percepts. Thus, any response depicting a figure(s) in interaction is given particular scrutiny" (p. 5).

Following the subject's description of the location of each percept, he or she is routinely asked the standard inquiry: "What made it look like" the percept. In the event that sufficient information is provided to yield a Mutuality of Autonomy Scale Score, no further inquiry is necessary and the examiner proceeds to inquiry on the next response. If, however, the subject provides a general movement and/or adjectival description of the percept which lacks sufficient specificity for a Urist score (i.e., "Bat flapping its wings") the examiner repeats the salient phrase, adding the phrase, "as if..." (i.e., "flapping its wings as if \_\_\_\_"). In cases where the initial "What made it look like..." question yields

neither an adjectival nor a movement response, the examiner asks the child to "Tell me more" about the percept. If the child then provides no elaboration, inquiry for that response is discontinued. If, however, the "Tell me more" question generates a subtle or vague movement and/or adjectival description, the "as if..." question described above is asked, completing the inquiry for that response.

The open-ended "as if" phrase can, in a relatively nondirective and exploratory manner, generate useful elaborations of the responses so as to provide relevant data about the subject's object representations.

#### Peabody Picture Vocabulary Test-Revised

Research on the Rorschach Test has demonstrated that intelligence levels which fall substantially below the average range can potentially confound both the quantity and quality of Rorschach responses (Allison, Blatt, & Zimet, 1968; Friedman, 1953; Schachtel, 1966). Thus, it was necessary to insure that level of intelligence would not be a confounding variable in the girl's performance on the Rorschach. Various researchers have found that vocabulary scores are an effective general indicator and predictor of overall intelligence in children (Allison, Blatt, & Zimet, 1968; Rapaport, Gill, & Schafer, 1968; Wechsler, 1974). Therefore, the Peabody Picture Vocabulary Test-Revised (PPVT-R), a norm-referenced, standardized test of receptive vocabulary which provides a

quick estimate of verbal intelligence, was administered to the girls in the present study. The PPVT-R was selected for its brief and concise administration, and because performance does not require skills of verbal expression.

The PPVT-R consists of 5 training items followed by 175 test items arranged in order of increasing difficulty. Each item has four simple black-and-white illustrations arranged in a multiple-choice format. The subject's task is to select the picture considered to best illustrate the meaning of a stimulus word presented orally by the examiner. The raw scores yielded by the subject's performance are converted into both deviation-type norms such as standard score equivalents, percentile ranks and stanines, and developmental-type norms such as age equivalents. For the purposes of the present study, the Standard Score derived from the raw score was used as an overall measure of the subject's verbal intelligence. The PPVT-R was standardized on a representative national sample of children and adolescents and a selected sample of adults. The development and standardization of the PPVT-R has been described in detail by Dunn and Dunn (1981) and will not be further described here.

#### Figure Drawing

It has been found that aspects of affect, temperament, attitude, and personality may be revealed in the drawings and paintings of both children and adults, demonstrating the "projective hypothesis" that un verbalized feeling

states may be projected into the procedure by which one manipulates and arranges a medium that can be formed and patterned (Harris, 1963). Harris summarizes the many techniques which have been suggested to evaluate the symbolic and manifest content of drawings as well as the more formal aspects of line, form, and color. She concludes that results of a vast array of studies assessing projective and qualitative aspects of human figure drawings has not been nearly as positive as those of the more analytic procedures for studying the details which comprise a drawing, and which yield developmental or intellectual maturity scores. Harris cites evidence suggesting that assessment of projective aspects of drawings often yields modest reliability and low validity due, in part, to the high degree of subjectivity in rater's evaluations of drawings. On the other hand, Goodenough's (1926) Draw-A-Man scale, and the subsequent Goodenough-Harris Draw-A-Person Test, a revision of Goodenough's earlier point scale for assessing intellectual maturity, have shown a high degree of both inter-rater reliability and validity. Therefore, the Goodenough-Harris scale, a norm-referenced, standardized scoring system which yields standard scores, was employed to score the drawings of the subjects in this study. While no specific hypotheses were generated regarding the figure drawings of the present sample of girls, it seemed clinically relevant to note whether there may be

significant group discrepancies in drawings of male and female figures.

Each figure in the drawing was formally scored according to the Goodenough-Harris scoring system (see Harris, 1963). The scale is comprised of four scoring categories: drawing of a man, by boys; drawing of a man, by girls; drawing of a woman by boys; and drawing of a woman, by girls. The categories utilized in the present study were the drawings of men and women by girls. Individual items included in each figure are scored as pass or fail according to the rules delineated in the scoring manual (Harris, 1963). A credit of 1 is allowed for each "pass" with no half-credits given. The raw score, the sum of these credits, becomes converted into a standard score based on the chronological age of the subject. Thus, the subject receives a total standard score for each separate drawing.

The Goodenough-Harris Draw-A-Person Test was standardized on a nationally-selected sample pool of children from ages 3- to 15-years-old. This revision of Goodenough's earlier scale (1926) and its development and standardization, are fully described by Harris (1963) and will not be further described here.

#### Sister Questionnaire

The Sister Questionnaire was presented to each subject. This brief, 7-item questionnaire (see Appendix H) was devised to tap the more conscious feelings and

attitudes of each girl subject toward her brother and his behavior. This was included for two principal reasons: (a) to provide a counterpoint to the Rorschach data on the subject's internal experiences; and (b) to evaluate whether her conscious perceptions of the degree of her brother's aggressive behavior toward her concurred with or differed from the mother's reports of the boy's aggression as determined by the Parent Questionnaire and the CBCL.

Seven questions were verbally presented to each girl and she was asked to choose from a 3-point scale of responses which included "always," "sometimes," or never." In cases where a subject indicated uncertainty or provided a response which fell between two of the scoring categories (i.e., "Not always, but more than sometimes") she was asked to choose the response which most closely described her brother's behavior as she saw it.

A scale to quantify the data derived from the Sister Questionnaire was developed in order to quantitatively assess the girls' perceptions of their brothers' aggression. This scale will be more fully described in Chapter III.

### Procedure

#### Child Interview

The researcher met with the daughters privately for between 1-1-1/2 hours while the mothers completed their materials. Approximately one-half of the subjects were tested in a private clinic office while the remaining

one-half were tested in their homes, either in their bedroom or in a quiet and private room in the house. In all cases, the setting was free from distractions. However, the intrinsic effects of being tested in the home environment as opposed to the clinic setting were evaluated in the analysis of the data, in order to control for this factor confounding the results.

Following a brief period in which to establish rapport with the subject, four tests were administered. First, the Peabody Picture Vocabulary Test-Revised was presented to the subject. The Rorschach Inkblot Test was then administered. Following completion of the Rorschach, the subject was provided with a blank piece of paper and was asked to draw a picture of a boy and a girl doing something together. Finally, the subject was presented with the Sister Questionnaire which consists of the series of seven questions presented verbally to the subject. Following the formal administration of these four instruments, which were presented in the same order to each subject, a brief and informal conversation period provided the subject with an opportunity to discuss her reactions and ask the examiner any questions about the tests. The use of this time varied as many subjects eagerly initiated discussion with the examiner about both the tests and about themselves (school, friends, hobbies, family, etc.), while some chose simply to ask a few questions about the tasks or to more briefly respond to

the examiner's informal comments. In all cases, this provided a neutral and apparently pleasant means of ending the interview with the girl.

Procedure for Administering and Scoring Figure Drawings

As described above, following the administration and completion of the Rorschach, each girl in the study was provided with a blank sheet of paper and asked to draw a picture of a boy and a girl doing something together. This was devised as a variation of the standard Goodenough-Harris Draw-A-Person Test. Boys and girls were suggested rather than men and women as it appeared that this form of inquiry may more possibly reflect projected aspects of the sibling relationship. The rationale for requesting that the two figures be engaged in some form of interaction was of a clinical nature. It had appeared interesting to consider variations in the type or quality of interaction, as well as the subject's description of the interaction across groups. For example, was there more or less mutual involvement between figures of one group or another? Were the interactions characterized by greater or lesser degrees of aggression in one of the two groups? Answers to these questions were to be sought by comparing the groups of subject's verbal descriptions of their drawings, as well as by the qualitative aspects of the drawings themselves. It is recognized that conclusions about these projective aspects of the drawings

will have limited applicability as they are based solely on the subjective inferences of the researcher.

Both intergroup and intragroup standard score differences were analyzed. First, the standard scores of the drawings of girls were compared across groups, then a similar comparison was made regarding the drawings of boys. These comparisons were made in order to assess whether group differences in the developmental level suggested by drawing scores may reflect the impact of the older brother. In addition, mean standard scores of boy and girl drawings within groups were compared. It was of interest to note whether these differences were more prominent in either of the two groups.

#### Procedure for Scoring the Rorschach Protocols

In order to insure that the identity of each subject remained obscured, a code number was randomly assigned to each before her data were scored. Names and identifying data were removed in order to assure that the examiner's pre-knowledge of the cases would not bias her evaluation of the data. All protocols were scored by the researcher. In addition, a sub-sample of 20 protocols was randomly selected and given to an independent rater, a clinical psychology Ph.D. candidate, to assess the inter-rater reliability of the scoring systems used in this study. The Rorschachs were scored using both the Klopfer et al. (1954) scoring system and the Mutuality of Autonomy Scale (Urist, 1977). As a post-hoc design was implemented

to create the two groups after the scoring of the protocols was completed, neither rater knew which group a particular subject was ultimately to be placed in. After protocols were independently scored, percent agreement between the raters was calculated. Any differences in scoring were then reconciled by discussion between the raters.

A variety of statistical procedures were employed in the analysis of the data in the present study. Parametric statistics were used except in situations where the data to be compared were categorical, in which case non-parametric statistical procedures were used.

### CHAPTER III

#### RESULTS

The findings of the present study will be presented in the following manner. First, a description of the relevant demographic, qualitative characteristics of the sample will be described. A summary of the Rorschach, PPVT-R, and Figure Drawing scores will then be provided. Next, the development of scales to quantitatively assess the Sister Questionnaire, the Parent Questionnaire, and the Achenbach Child Behavior Checklist will be discussed. The process of dividing the entire sample into two separate groups based on the mother's ratings of their son's aggressiveness will then be reported. Group comparisons of demographic and test score variables will be summarized. Finally, the results of all Rorschach analyses across groups will be presented.

#### Description of the Sample

##### Demographic Variables: Total Sample

A total of twenty-four families in which there were brother-sister pairs participated in the present study. As indicated in Chapter II, the data was provided by the mother and the daughter in the family. Each brother-sister pair included a latency-aged girl between

the ages of 7-10 years and her adolescent brother between the ages of 12-16 years. The ages of the girls in the study ranged from 88 months (7.3 years) to 130 months (10.8 Years), and the age range of the older brothers in the sibling pairs was from 144 months (12.0 years) to 199 months (16.6 years). Previous research on sibling relationships has indicated that the age difference between siblings can be an important aspect in determining the quality of their interaction. It has been found by several investigators, for example, that the relationship between siblings closer in age may in many cases differ markedly from that of siblings with a wider age spacing (Bigner, 1974; Bryant, 1982; Longstreth et al., 1975; Steinmetz, 1977; Sutton-Smith & Rosenberg, 1970). Thus, the characteristic of the age difference between the siblings was considered initially in the total subject population, and later when the sample was divided into two separate groups. The total sample yielded a rather wide range of age differences in the brother-sister pairs: the sibling pair closest in age differed by 25 months (2.1 years) while the pair with the widest age discrepancy differed by 103 months (8.6 years).

The families in the study also differed with regard to the presence and ages of siblings other than the subject pair. It has been found that relative ages of siblings, age spacing, and family size are among the

many variables that must be considered when studying sibling interactions (Bryant, 1982; Sutton-Smith, 1982; Sutton-Smith & Rosenberg, 1968, 1970). Thus, the presence of additional siblings was a relevant demographic characteristic to be noted in order to control for its influence on data provided by the two groups. In six of the cases (25%) there was a sibling older than the brother in the sibling pair. In seven cases (29%) there was one sibling, and in one case (4%) there were two siblings, between the sibling pairs studied. Finally, in two cases (8%) there was one sibling younger than the girl in the sibling pair. In the remaining eight cases (33%) two youngsters studied were the only children in the family. Table 1 presents the mean value and standard deviations of the demographic variables which have thus far been described.

There were differences among the subjects as to whether both parents lived in the home or whether they were from single parent families. In all 24 cases, the mothers served as primary caretakers. In 17 of the cases the father also lived in the home, while in the other 7 cases, he did not. Out of these seven, the degree to which the father had contact with his family ranged considerably. In one case there was no contact between the father and family; in three cases the fathers maintained infrequent, erratic contact

Table 1

Means and Standard Deviations of Age and SiblingVariables: Total Sample

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Variable	Mean	S.D.
Age Sister <sup>a</sup>	9.21	1.18
Age Brother <sup>b</sup>	13.95	1.62
Age Difference <sup>c</sup>	4.74	2.06

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<sup>a</sup> Sister's age at time of testing (in years).

<sup>b</sup> Brother's age at time of testing (in years).

<sup>c</sup> Total sample age differences between brothers and sisters at time of testing.

(quarterly to yearly) with their families; in one case the father generally remained in contact with his family on a bi-weekly basis, although somewhat irregularly. In two cases the father lived outside of the home but maintained regular weekly or bi-weekly contact.

The range of SES in the families studied is quite broad and it seemed at the outset that this variability could potentially influence the results. Therefore, this factor was controlled for when the hypotheses were being analyzed. Six families (25%) were on public assistance. The remaining 18 were in the social class divisions determined by the Hollingshead 9-point Occupational Scale (1957). Sixty-two percent of the families were in the top three occupational categories, two-thirds of which were in the topmost grouping. The remaining 13% were spread over three lower-middle groupings on the Scale. Ethnic background was also considered to be a variable which may influence the results produced by the two groups and was controlled for when group differences were analyzed. The families in the study were of varying ethnic backgrounds, although a majority of 17 families (71%) were white. Five families were Black (21%), and the remaining two families (8%) were Hispanic.

Another demographic variable considered was the school setting of both the brother and sister in the subject pair. Sixteen (67%) of the girls attended

public schools. Eight girls (33%) attended private schools. Of their brothers, 12 (50%) attended public schools, 7 (29%) of the boys attended private schools while 5 (21%) attended special schools. It had appeared plausible to expect that boys enrolled in special schools<sup>1</sup> may simply, due to the nature of their emotional or cognitive difficulties, evidence increased aggressive behaviors when compared to those boys attending regular public or private schools. It was thus necessary to control for this variable when analyzing the data provided by the two groups.

Two additional demographic variables were considered to be relevant when evaluating determinants which could confound data provided by the two groups of girls. First, as indicated in Chapter II, several of the subject pairs had been sought in mental health clinics where the older brother was in treatment, while brothers in other pairs were not in any form of treatment. The variable considered was whether the boys were in treatment at the time of or within a six-month period prior to the data collection. Nine of the brothers (38%) were not in treatment, while ten (42%) were in individual treatment. One brother (4%) attended a boy's

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1 Three of these boys attended schools for learning disabled; one attended a school for emotionally disturbed youngsters and one attended a JBFCs day treatment program.

group at a clinic while the brother in another subject pair was in a therapy group at his school. Two boys (8%) out of the total sample were in both individual and family therapy. Thus, the final sample was comprised of a range of treatment situations for the brothers, although the majority had either been in no treatment or in individual treatment. It was necessary to control for this as a potentially significant variable which could overly determine group differences and ultimately influence the data provided by the two groups of girls.

Finally, it was considered a potentially significant factor that the girls in the study were tested in one of two different settings, either in their home, or in a mental health treatment clinic. Thirteen girls (54%) were seen by the researcher at their homes while eleven (46%) were seen at the clinics in which their brothers were treated. Obviously, this factor correlated with whether the brother was in fact in treatment. It appeared possible that the difference in test-site may influence the subjects' experiences and performance while being tested and that differing results across groups may be attributed in part to this factor.

#### Test Score Dependent Variables: Total Sample

As indicated in Chapter II, each of the 24 girls were assessed using the Peabody Picture Vocabulary Test-Revised, Figure Drawing standard scores, and

Rorschach scores based on both the Klopfer and Urist scoring systems. Table 2 summarizes the means and standard deviations of these variables from the data of the total sample of girls studied. The PPVT-R was administered to insure that substantially below average level of intelligence would not be a confounding variable in the girls' performance on the Rorschach test. While the total sample of PPVT-R standard scores of the present sample ranged from 70-133, only two subjects produced scores which fell below the low average scoring category. When these two were contrasted with the remaining subjects on relevant Urist and Klopfer Rorschach scores, no significant effects were observed. Thus, these two cases were not ruled out when the total sample was ultimately divided into two groups and when group comparisons were made.

The individual figures of a boy and a girl within each figure drawing were scored separately. As Table 2 indicates, the differences in mean scores between the Draw-A-Boy as contrasted with the Draw-A-Girl are minimal. The total sample means and standard deviations of relevant Rorschach variables considered in this study are also summarized in Table 2. While these and other Rorschach variables will be discussed in more detail later in this chapter with particular attention given to group comparisons, the Rorschach data generated by the total sample will be briefly described here.

Table 2  
Means and Standard Deviations of Test Score Dependent  
Variables: Total Sample

Variable	Mean	S.D.
PPVT-R	101.26	16.50
Draw-A-Boy	93.62	15.58
Draw-A-Girl	92.92	12.95
Sum Klopfer	25.12	8.87
Total O-R <sup>a</sup>	7.29	4.69
Highest O-R <sup>b</sup>	1.95	2.21
Lowest O-R <sup>c</sup>	5.29	1.68
Urist Mean	3.15	.60
Urist Mode	2.81	1.18
Urist Median	2.70	.89

<sup>a</sup> Total number of Urist Object Relations Scores per protocol.

<sup>b</sup> Single highest Object Relations Score per protocol.

<sup>c</sup> Single lowest Object Relations Score per protocol.

Rorschach responses per protocol as scored by the Klopfer scoring system ranged from 12 to 44 total responses, yielding a total sample mean of 25.12. Ames et al. (1974), in their normative study of children's Rorschachs found that the mean number of responses (R) for their populations of girls between 7- and 10-years was 16.4. Thus, the total sample mean R of 25.12 given by subjects in the present study is considerably higher than Ames et al. found to be the case in their normative study.

Table 2 also summarizes the relevant Urist Object Relations scores yielded by the total sample. Subjects generated between 0-16 scoreable Urist responses with a resulting total sample mean of 7.29. Two children provided no responses. Tuber (1981) suggests that it is not atypical for children to provide no Urist scores, but indicates that the total absence of such scores, as in the absence of "M" responses in a typical Rorschach psychogram may be a pathognomonic indicator. Thus, as a lack of Urist scores does not indicate "no data," the two subjects who provided no Urist scores were not omitted from the study.

The five remaining means and standard deviations of Urist scores for the total sample are tabulated in Table 2. As indicated in Chapter II, Urist's scale ranges from a highest Object Relations score of 1 to a lowest Object Relations score of 7. Interestingly, no subjects

in the present sample produced a scaled score of 7 so that scores ranged from 1-6.

### Inter-rater Reliability

As described in Chapter II, Rorschach protocols were independently rated by both the author and a clinical psychology Ph.D. candidate. Percent agreement levels between raters were obtained for the standard Rorschach determinants as scored by Klopfer et al. (1954) and for Urist's Mutuality of Autonomy Scale. The reliability findings are presented in Table 3. These results represent a strong degree of inter-rater reliability.

Table 3

### Inter-rater Agreement on Rorschach Measures

Rorschach System	Percent Agreement "Exact Hit"	Within 1 Point
Klopfer	91%	---
Urist	86%	93%

The further evaluation and contrasting of all dependent variables which have thus far been described will be discussed later in this chapter when the division of the total sample into two groups has been described.

### Development of the Scales

The hypotheses presented in this investigation suggest that if the brother-sister pairs could be divided into two groups based on mother's reports of their son's level of aggression, then marked group differences would be manifested in the sister's Rorschach protocols. More specifically, the sisters in the group of more aggressive brothers would have Rorschach protocols characterized by malevolent object representational scores as well as by increased constriction and a lack of affect and human responsiveness, when compared to the group of sisters with less aggressive brothers. Therefore, a fundamental task was to divide the sample of 24 subjects into two groups, based on the degree of brother's aggression. Three separate scales were used to measure different dimensions of the degree of aggression of each brother. The data generated from the scales were used to determine the two groups. The scales were created from three data sources: (a) the Sister Questionnaire, completed by each girl in the study; (b) the Parent Questionnaire, completed by each mother, regarding her perception of the interaction between her son and daughter; and (c) the Achenbach Child Behavior Checklist on the adolescent brother, also completed by the mother. These three instruments are described in Chapter II.

The development of each scale will be described below.

#### Sister Questionnaire Sum Scale

A scale was created from the Sister Questionnaire with each item coded so that the greatest weight was given to the most aggressive pole. It was crucial to give different weights to the responses so as to accurately scale the girl's perceptions of their brothers aggressiveness toward them. For each question, a subject could receive a score of 1, 2, or 3. The most aggressive pole was scored a 3, while the least aggressive was scored a 1. For example, responses to question #1: "Does your brother like to spend time with you?" and question #4: "Does your brother beat you up?" require inverse weights. These weights are shown in parentheses on the questionnaire presented in Appendix H, which also shows the overall tallies by the total sample of 24 sisters.

The Sister Questionnaire Sum Scale was subjected to a reliability analysis and yielded a Cronbach's Alpha of 0.75. The scale ranges from a low of 7 to a high of 21 possible points. The girls in this sample yielded a range of scores from 8 to 18. The mean and standard deviation for the Sister Questionnaire Sum Scale are 14.38 and 2.36, respectively.

#### Parent Questionnaire Scale

Three raters (the author and two outside raters) independently rank-ordered 37 of the parent

questionnaire items so as to determine a scale comprised of those items considered to most strongly evidence the brother's most malevolent and aggressive behaviors in relation to his sister. Fourteen items were unanimously found by all raters to indicate highly aggressive behaviors. These 14 items were subjected to a reliability analysis in which it was discovered that only seven of them demonstrated inter-item consistency. Thus, attention was focused on those seven questions which indicated severely negative and aggressive behavior by the brother to the sister. Those items were used to create a "Parent Questionnaire Negative Scale," which yielded a Cronbach's alpha of 0.80. For each question, a subject could receive a score of 1-5, with the most aggressive pole scored a 5 and the least aggressive scored a 1. Sum scores for the scale could range from 7-35. The actual range of sum scores mothers tallied for the 24 boys was from 9 to 25. The mean and standard deviation for this scale are 19.17 and 5.14, respectively. This scale will be referred to as the "PQ Negative Scale." The entire original Parent Questionnaire is reproduced in Appendix G, where the seven items used in the final scale are indicated by asterisks. The number values below each question in Appendix G, represent the overall sum tallies of the 24 mothers.

Achenbach Hostile Withdrawal-Aggressive Scale

A second scale was created from the data provided by the 24 mothers on their sons' Achenbach Child Behavior Checklist profiles. Given the nature of the present study and, specifically, the focus on aggressive behavior, the CBCL "Aggressive" and "Hostile Withdrawal" Behavior Problem Scales were found to be the most relevant descriptions of aggressive behavior.<sup>1</sup> Therefore, these Achenbach matrices were selected for creation of a scale. It had initially appeared desirable to create a single scale rating mother's descriptions of her son's aggressive behavior by integrating data collected from the PQ Negative Scale with the two relevant Achenbach scales. Thus, an attempt was made to combine the seven-item PQ Negative Scale with the Achenbach "Aggressive" and "Hostile Withdrawal" scales in order to develop a potential nine-item scale. The correlation matrix for the PQ Negative Scale when compared against the Achenbach items, yielded insignificant inter-item correlations, and the Reliability Analysis was undesireably low (Cronbach's alpha of 0.64). The means and standard deviations for the two Achenbach matrices were substantially larger than those calculated for the seven

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1 As indicated in Chapter II, the "Delinquent" Matrix was ruled out from inclusion in the Scale because an insufficient number of mothers scored their sons outside the normal range.

PQ Negative items, resulting in an imbalance which disallowed the possibility of combining them into a single scale. Thus, the two Achenbach indices were used to create a separate scale.

The sum of the Achenbach "Hostile-Withdrawal" and "Aggressive" Behavior Problem matrices were tallied for the entire sample of the boys CBCL's in order to form the scale. This scale will be referred to as the "Hostility-Aggression" scale. As with the PQ Negative and Sister Questionnaire scales, a reliability analysis was performed on the Hostility Aggression scale. This yielded a Cronbach's alpha coefficient of 0.85. Scores for this scale can range from 0-72. The scores the mothers tallied range from a low of 2 to a high of 48. The mean and standard deviation for this scale are 19.33 and 14.99, respectively. The entire CBCL as well as the Child Behavior Profile for both boys (age 12 to 16) and girls (age 6 to 11) are reproduced in Appendix F.

#### Scale Intercorrelations

High internal reliability ratings have been shown for each scale indicating an inter-item consistency within each scale. Thus, the items chosen for each scale ask a set of coherent questions. Pearson Product Moment Correlations were also performed in order to determine the intercorrelations of the three scales

described above.<sup>1</sup> The PQ Negative and Hostility-Aggression scales, both based on mother's reports, yielded a significant correlation of .50 ( $p < .01$ ) while neither correlated strongly with the Sister Questionnaire Sum scale. The correlation of the Sister Questionnaire scale with the PQ Negative scale was .20 and the correlation of the Sister Questionnaire scale with the Hostility-Aggression scale was .11. It is not surprising that the two scales representing different aspects of the mother's perceptions correlated well. The weak correlations with the Sister scale, however, are of interest in that they clearly indicate that perceptions of the mothers and daughters are quite discrepant with regard to their respective experience of the son's/brother's degree of aggression.

#### Scale Correlations with Demographic and Test-Score Dependent Variables

In addition to the scale intercorrelations described above, Pearson Product Moment Correlations were performed comparing the three scales with: (a) the total sample variables shown in Tables 1 and 2; (b) demographic variables; and (c) the Girls' Achenbach CBCL scale sum scores. The girls' behavior scores were considered in order to establish whether mothers rated both sons and daughters in a consistent manner. A

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<sup>1</sup> Unless otherwise stated, all correlations reported in the results are positive.

comparison of the Girls' "Aggressive" Scale of the CBCL and the PQ Negative scale yielded a correlation of .35, significant at the  $p < .05$  level, suggesting that mothers who reported more aggression of their sons toward their daughters, also described their daughters as more aggressive. Similarly, when the Girl CBCL "Aggressive" Matrix was contrasted with the Hostility-Aggression scale, a correlation of .49 was found ( $p < .01$ ). However, the Girl CBCL "Aggressive" Matrix did not correlate significantly with the Sister Questionnaire scale. These results suggest that mothers who perceived more aggression in their sons as rated by the PQ Negative and Hostility-Aggression scales, also tended to rate their daughters as being more aggressive on the Girls' CBCL Aggressive scale, whereas no significant correlations were found between the mothers' perceptions of their daughters' aggressive behaviors and the girls' assessments of their brothers' levels of aggression. The means and standard deviations of girls' CBCL Behavior Problem Scale scores for High and Low Hostility-Aggression groups individually as well as for the total sample are shown in Appendix I.

#### Formation of Groups

As described previously, the scales were created in order to measure the brother's level of aggression, with the goal of forming two separate groups of brother-sister pairs. Group identity serves as the independent

variable in this study. The ranges and frequency distributions of both the Sister Questionnaire Sum scale and the PQ Negative scale did not result in any visible distribution of the data into two groups. As discussed above, an attempt had been made to combine the PQ Negative and Hostility-Aggression scales into a single scale, but that, also, proved to be impossible due to weak inter-item correlations, a low reliability analysis coefficient, and Hostility-Aggression item mean and standard deviations that were much larger than those of the PQ Negative scale items. However, once the Hostility-Aggression scale was created as a separate scale, and its range and frequency distribution noted, the scale was seen to be a useful means of demarcating the two groups. Table 4 presents the score tallies as well as the frequency distributions for the Hostility-Aggression scale. The table illustrates that the sum of the two matrices created a scale that collapsed into two non-overlapping groups with an even split of 12 cases per group. The bimodality indicated a clear differentiation of mothers' perceptions of the levels of aggression in the boys. The low aggressive group (sum scale scores of 2-12) will be referred to as Group #1 and the high aggressive group (sum scale scores of 20-48) will be referred to as Group #2.

When the two groups had been defined on the basis of the Hostility-Aggression scores, a  $t$  test was performed

Table 4

Achenbach CBCL Hostility-Aggression Scale

Sum of Scales <sup>1</sup>	Frequency Distribution
2	1
3	2
4	1
5	1
7	1
8	2
10	2
11	1
12	1
-----	
20	2
24	1
26	1
29	1
31	1
32	1
34	1
38	1
39	1
40	1
48	1

<sup>1</sup> Formed from sum of Boys CBCL Hostile-Withdrawal and Aggressive Matrices.

with the PQ Negative scale and the Sister Questionnaire scale as variables. While the Sister scale showed no significant differences between Groups #1 and #2, the PQ Negative scale  $t$  test yielded a significant difference ( $t = 2.24, p < .05$ , two-tailed). This corroborates the interscale correlations described earlier, where it was found that the PQ Negative and Hostility-Aggression scales correlated significantly, whereas the Sister Questionnaire Sum scale yielded a particularly weak correlation with the Hostility-Aggression scale.

#### Low Aggressive vs. High Aggressive Group Differences

##### Demographic, Dependent Variables

Once the total sample was divided into two groups according to the Hostility-Aggression scale scores, it became possible to examine the degree to which the demographic factors described earlier in this chapter may have influenced the results. All qualitative, categorical variables were studied by forming contingency tables. Included in this analysis were the age and sibling variables summarized in Table 1, as well as the demographic characteristics discussed earlier.<sup>1</sup>

Of the many demographic variables considered, only one, the variable of the sister's school showed

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<sup>1</sup> Demographic factors included: one- or two-parent families; father contact; SES; ethnicity; school setting of both brother and sister; brother's treatment; test-site.

statistically significant differences across groups. The sisters of the low-aggressive brothers were almost evenly divided with regard to their schools, with five of the sisters attending public school and seven attending private school. However, only one of the twelve sisters of the group of high aggressive brothers attended a private school. The contingency table is reproduced in Table 5. This difference was statistically significant ( $p < .025$ , using Fisher Exact test, given the small sample size).

#### Test-Score Dependent Variables

Having discriminated that demographic variables minimally influenced the results provided by the two groups,  $t$  tests were performed for all test-score variables summarized in Table 2. For the most part, group differences were not observed. The single significant difference between the two groups was found to be the number of total Rorschach responses per group as measured by the Klopfer scoring system. Here it was found that Group #2 (High Hostility-Aggression) produced a substantially greater number of responses than did Group #1 (Low Hostility-Aggression). The means (and standard deviations) for the two groups were 30.2 (8.9) and 20.0 (5.3), respectively. The computed  $t$  value was 3.43 ( $p < .01$ , two-tailed). No significant findings were yielded by the  $t$  tests comparing the Urist Object

Table 5

Contingency Table for Demographic Variable of Girl's Schools

Count Col. P Ct	Group 1 Low Hostility- Aggression	Group 2 High Hostility- Aggression	Row Total
Public	5 (41.7)	11 (90.9)	15 (65.2)
Private	7 (58.3)	1 (9.1)	8 (34.8)
Column Total	12 (52.2)	12 (47.8)	24 (100.0)

Relations scores. Although the total Rorschach (R) responses differed significantly, the number of Urist Object Relations scores did not differ significantly across groups. However, because of the difference in total number of responses across groups, it was necessary to control for the effects of this variable on the results. An Analysis of Variance was performed contrasting all test score variables with the Hostility-Aggression groupings, with total R used as a covariate. No significant correlations were found. Pearson Product Moment Correlations were then performed contrasting all Urist Object Relations and Klopfer Rorschach scores with the Sister Questionnaire Sum Scale, the PQ Negative Scale, and the Hostility-Aggression Scale, still using R as a covariate. No significant results were yielded from these correlations. To summarize, differences in results were not discovered when the effect of the number of Klopfer score responses was controlled for.

The standard scores for both the figure drawings of the boy and the girl were compared across groups using  $t$  tests. These comparisons yielded no significant differences. Intra-group comparisons were then made, in order to assess whether girls within each group produced significantly different standard scores for the boy and the girl within each drawing. This comparison was made in order to assess whether the request for a drawing of

the two different-sex figures interacting may yield a discrepancy. In fact, no significant differences were discovered from this analysis.

In addition to the statistical comparisons of group figure drawing standard scores described above, the drawings were also observed from a clinical point of view, to assess group differences. Surprisingly, the vast majority of subjects in both groups drew and described only positive interactions between the girl and boy figures in the drawings. An examination of the qualitative aspects of the two groups of drawings, as well as the verbal descriptions of the drawings provided by girls in each group, showed no differences in the quality or degree of interaction between boy and girl figures per drawing. Furthermore, the interactions depicted in the two groups of drawings were characterized by no manifest differences with regard to the degree of aggression or malevolence displayed by one sibling toward another. Subjects in both groups primarily depicted children playing together (checkers, ball, catch, frisbee, jumping rope, talking, and dancing together). The only response which suggested any expression of aggression was provided by one subject in Group #2: "It's a boy and a girl, a brother and a sister; the boy is 12 and the girl is 11 and they're playing checkers. Sometimes they fight and sometimes they don't; sometimes she lends him her money and he

says he will pay her back but never does. In this picture, they're playing checkers." It is striking that this mild description of fighting was the single and most extreme provided by the entire sample. Thus, clinical differences were not discriminated between the figure drawings of the two groups.

No significant findings resulted from the comparisons of the PPVT-R Standard Scores by group, indicating that this variable did not confound the results provided by the two groups.

As indicated in Chapter II, the mothers' completion of the CBCLs on their daughters provided data regarding symptomatic behaviors in the girls. Although the focus of the study was to evaluate the girls' inner object experiences, it was also of interest to compare the presence of behavioral difficulties in the two groups of girls. It has been shown that the mothers who perceived more aggression in their sons as rated by the PQ Negative and Hostility-Aggression scales, also tended to rate their daughters as more aggressive on the Girls' CBCL Aggressive matrix. Four subjects, all in the High Hostility-Aggression Group, received scores above the normal range on the CBCL Aggressive subscale. These four subjects consistently received scores above the normal range on several matrices, suggesting a picture of behavior problems in several areas. Five girls received CBCL Sum Behavior Problem Scores (an overall

behavior problem tally) which were above the normal range. Again, all of these girls were in the high Hostility-Aggression Group. Thus, interestingly, all girls who consistently presented behavioral difficulties according to their mothers, had brothers who were rated by their mothers as being more aggressive.

### Rorschach Test Results

#### Mutuality of Autonomy Scale Scores (MOA)

Once the sample was divided into two groups and intrusion of a number of demographic factors was ruled out, it became possible to assess if the groups differed in their MOA scale scores. It had been expected, as indicated in Hypothesis 1, that girls with less aggressive brothers (Low Hostility-Aggression Group) would produce more adaptive object representational scores as measured by the MOA Scale. A  $t$  test was performed comparing Total O-R, Mean, Median, Mode, Highest Object Relations (H-O-R) and Lowest Object Relations (L-O-R) scores per group. This analysis yielded no significant differences. MOA scores are presented in Table 6. As shown in the table, group comparisons were made using all 12 subjects in each group. However, it has been previously noted that two subjects in the Low Hostility-Aggression group produced no scale scores. Since the means of all MOA variables in Group #1 were lowered as a result of the lack of scores in two cases, the  $t$  test was repeated, this time

Table 6

Mutuality of Autonomy Scale Scores by Group

Variable	Number of Cases	Mean	S.D.	T Value
Group 1	12	5.9167	4.033	
<u>Total O-R</u>				-1.32
Group 2	12	8.4167	5.160	
<u>Umean</u>				-0.99
Group 1	12	2.6725	1.336	
Group 2	12	3.1024	0.685	
<u>High O-R</u>				0.00
Group 1	12	1.5000	0.905	
Group 2	12	1.5000	0.522	
<u>Low O-R</u>				-0.67
Group 1	12	4.3333	2.188	
Group 2	12	4.8333	1.403	
<u>Umode</u>				-1.04
Group 1	12	2.2917	1.405	
Group 2	12	2.8750	1.351	
<u>Umedian</u>				-0.98
Group 1	12	2.2500	1.270	
Group 2	12	2.7083	1.010	

calculating the results on the basis of 10 subjects in Group #1. While the means and  $t$  values changed somewhat, significant differences were still not evidenced in the MOA scores of the two groups.

As these measures of central tendency produced no significant differences, non-parametric procedures were used to assess whether the ranges of raw scores across groups could discriminate between them. MOA scale scores of 1 and 2 (more adaptive object relations scores) were separately rank ordered by group. Then, MOA scale scores of 5 and 6 (less adaptive object relations scores) were separately rank ordered by group. The Mann Whitney U Test was then employed to test whether groups could be differentiated on this basis. No statistically significant relationships were found.

A final analysis was performed by creating four contingency tables of inter-group differences. The first table compared those subjects in each group who produced MOA scores of 1 and those who produced no 1's. This was repeated comparing production of MOA 6's. A table was then created comparing those subjects in each group who produced 3 or more MOA scores of 5 and those who produced less than 3 MOA 5's. This comparison was subsequently repeated comparing production of 3 or more MOA 2 scores with subjects who gave less than 3 MOA 2's. These four contingency tables were compared using the chi square statistic. Again, no significant group

differences were found.

### Klopfer Rorschach Scores

Hypotheses #2 proposed that the girls of more aggressive brothers would produce Rorschach protocols characterized by significant constriction as manifested by a lack of both affective and human responses. It has been suggested previously that scores characteristic of emotional constriction can include the following: high F%, high A%, a high number of popular responses and conversely, a low number of total responses, as well as fewer responses using color, human movement (M), and animal movement (FM). These Rorschach determinants and percentages are shown by group in Table 7. T tests were used to compare the Rorschach determinants of both groups and no significant group differences were found in the Rorschach variables which would indicate emotional constriction. However, two Rorschach variables were found to differ substantially across groups. It has already been shown that a significant difference was found in the total number of responses given by each group, wherein the girls with brothers reported to be more aggressive produced a larger number. Thus, the high aggressive group which had been expected to produce fewer total R, gave significantly more than the low-aggressive group. In order to insure that this difference in total R had not influenced the results of the other Rorschach variable comparisons, the difference

Table 7

Rorschach Determinants

Subject by Group	R	F%	Extended F+%	F+%	M+	M-	FM+	FM-	Weighted Sum C	H%	A%	P%
7	29	69	24	17	0	0	0	0	12	0	31	3
9	26	73	46	31	1	0	1	0	1	0	31	11
10	17	41	71	12	1	0	5	1	1	12	53	12
14	12	92	99	58	3	0	3	2	3	8	92	8
15	15	47	40	27	0	0	1	1	9	7	47	20
16	12	42	50	17	1	0	2	1	7	17	33	25
18	24	29	67	29	2	1	3	3	7	13	46	21
19	19	53	53	32	2	0	1	0	4	5	42	26
20	22	64	77	41	1	0	4	0	0	5	32	27
22	21	29	99	29	6	0	5	1	6	19	48	28
23	22	23	77	23	2	1	1	4	2	18	68	18
24	21	34	86	10	5	0	5	2	6	14	43	24
1	39	38	82	28	1	0	5	3	6	5	38	18
2	20	50	50	15	4	2	3	0	2	15	25	15
3	32	40	53	31	3	2	4	4	6	9	34	16
4	25	56	68	40	0	0	3	1	7	8	58	28
5	44	43	57	23	4	1	6	5	14	9	68	16
6	25	56	60	36	3	2	3	2	2	16	36	12
8	33	54	73	36	4	0	5	2	2	15	64	24
11	24	88	88	75	1	0	1	0	0	8	63	25
12	36	75	64	56	0	0	1	1	5	8	42	14
13	25	32	80	16	4	0	7	2	0	8	36	20
17	17	6	76	6	3	1	5	1	4	12	47	29
21	43	54	67	35	4	1	1	0	7	14	26	16

in total R was taken into consideration using R as a covariate. Again, no significant differences were found in the group comparisons of Rorschach determinants discussed above.

However, in addition to the significant difference in R across groups, the number of M- Rorschach responses (Human Movement, poor form level rating) was also found to differ significantly across groups. As Table 7 shows, only two subjects in Group #1 produced M- scores, while six subjects in Group #2 produced M-. The means (and standard deviations) of the M- variables per group were 0.1667 (0.389) and 0.7500 (0.866) for Groups #1 and #2, respectively. The computed  $t$  value was 2.13 ( $p < .05$ , two-tailed). It thus appears that M- scores were more frequently provided by Group #2 subjects. This finding is noteworthy as the M- score can be indicative of a serious impairment in reality testing, defective ego organization, and poor self-representation.

Klopper et al. (1954) have suggested that quantitative proportions of scores may provide some understanding of how the motivational and emotional aspects of personality development are organized. The authors indicate that an imbalance of at least 2:1 in any direction can be considered to represent a predominant personality characteristic. The proportional ratios used in this study to assess group differences are shown in Table 8. An imbalance in these

Table 8

## Rorschach Ratios Using Klopfer Scoring

Group 1: Low Hostility Aggression						
Subject	M+: Wt SumC	(M+ + M-): Wt Sum C	(M+ + M-): (FM+ + FM-)	M+: FM+	(M+ + M-): (FM+ + FM- + Fm+ + Fm-)	M+: (FM+ + Fm+)
7	0:12	0:12	0:0	0:0	0:0	0:0
9	1:1	1:1	1:1	1:1	1:2	1:2
10	1:1	1:1	1:6	1:5	1:6	1:5
14	3:3	3:3	3:5	3:3	3:5	3:3
15	0:9	0:9	0:2	0:1	0:2	0:1
16	1:7	1:7	1:3	1:2	1:3	1:2
18	2:7	3:7	3:6	2:3	3:7	2:3
19	2:4	2:4	2:1	2:1	2:2	2:2
20	1:0	1:0	1:4	1:4	1:6	1:5
22	6:6	6:6	6:6	6:5	6:6	6:5
23	2:2	3:2	3:5	2:1	3:5	2:1
24	5:6	5:6	5:7	5:5	5:8	5:6
Group 2: High Hostility Aggression						
1	1:6	1:6	1:8	1:5	1:10	1:7
2	4:2	6:2	6:3	4:3	6:3	4:3
3	3:6	5:6	5:8	3:4	5:9	3:4
4	0:7	0:7	0:4	0:3	0:4	0:3
5	4:14	5:14	5:11	4:6	5:12	4:6
6	3:2	5:2	5:5	3:3	5:5	3:3
8	4:2	4:2	4:7	4:5	4:7	4:5
11	1:0	1:0	1:1	1:1	1:1	1:1
12	0:5	0:5	0:2	0:1	0:2	0:1
13	4:0	4:0	4:9	4:7	4:11	4:9
17	3:4	4:4	4:6	3:5	4:6	3:5
21	4:7	5:7	5:1	4:1	5:1	4:1

ratios tends to imply either excessive impulsivity or constriction. Data of subjects in each group whose protocols yielded an imbalance of 2:1 or more in either direction were subjected to inter-group comparisons using the chi square statistic. No significant differences were found at the  $p < .05$  level for this analysis, suggesting that the ratios in each group did not vary sufficiently to be considered remarkable.

Discrepancy in Mother-Daughter  
Perceptions by Group

A striking disparity was noted between the sisters' perceptions of their brothers' aggressiveness toward them and the mothers' perceptions of the boys' level of aggressiveness. Once the two groups had been differentiated, it appeared useful to look back at the nature of the relationship between the sisters' and mothers' perceptions. As the Parent Questionnaire Negative and Sister Questionnaire Sum scales addressed both mothers' and daughters' perceptions of the brothers' aggression specifically addressed toward the sister, these two scales were utilized for further analysis at this point.

A joint score was created to represent the difference between mothers' and daughters' perceptions by group. This score was derived by converting the Parent Questionnaire Negative and Sister Scale scores into Z-scores, then subtracting the daughter's Z-score

from the mother's Z-score, yielding scaled scores for each group. Figure 1 indicates the mother-daughter differences in scores for the two groups taken separately. Positive scores represent daughters who are less critical of their brothers than their mothers (mothers perceive more aggression in brothers than do the sisters) while negative scores represent daughters who are more critical of their brothers than are their mothers (mothers perceive less aggression in brothers than do the sisters). When a  $t$  test was performed, no significant differences were observed.

In a continuing effort to discern a pattern to the distribution of scores in Figure 1, it was of interest to relate the scores in the figure to the public-private school splits reported in Table 5. Accordingly, the eight scores corresponding to the girls who attend private schools have been annotated with a P beneath them in the figure. It is observed that the one private-school sister of a High Hostility-Aggression boy is the second from the most extreme right hand score, thus being less critical of her brother (perceiving less aggression) than was her mother. In the Low Hostility-Aggression group, there did appear to be a more dramatic difference of public versus private school enrollment. Here, it is seen that among the group of subjects whose brothers are rated as less aggressive, six out of the seven sisters who attend private school

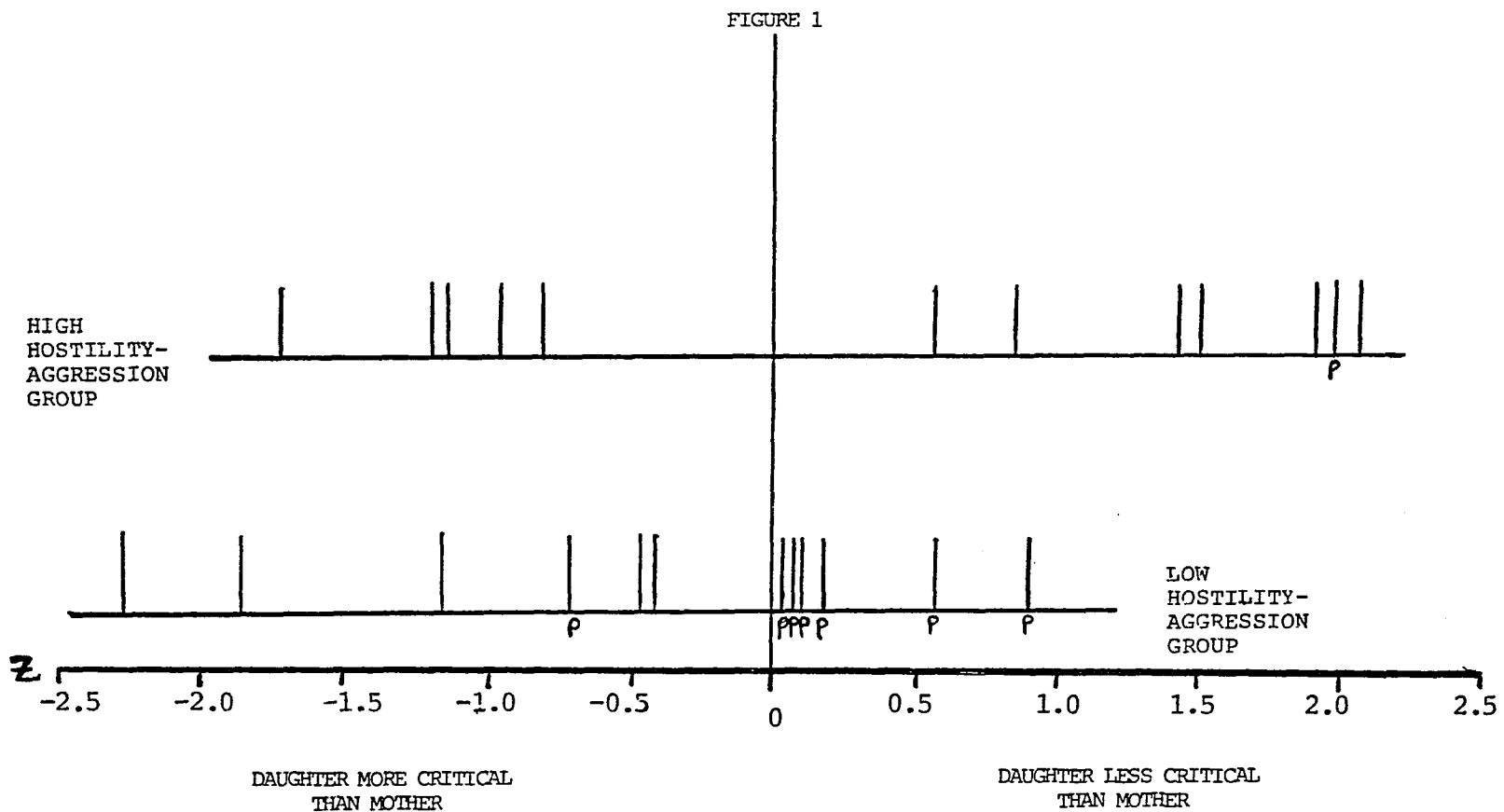


Figure 1: Distribution of Differences between Parent Questionnaire Negative and Sister Questionnaire Sum Scales expressed in Z-scores and plotted separately for the two Hostility-Aggression groups.

contributed scores to the right of  $Z=0$ . From the distribution of the private school sisters in the figure, a consistency seems to emerge. Seven out of the eight mothers whose daughters attended private school rated their sons as low aggressive rather than high, and the private school daughters themselves were less critical of their brothers' aggression than the sisters in both groups who attend public schools. A  $t$  test was performed to compare the mother-daughter disparity z-score of the Low Hostility-Aggression group along the dimension of whether the sister attended public ( $N=5$ ) or private ( $N=7$ ) school. This analysis yielded a significant difference ( $t=3.66$ ,  $p < .01$ , two-tailed). The means (and standard deviations) of the public and private school girls are 1.21 ((0.82) and 0.17 (0.50), respectively.

To determine whether there were any further implications of the Sister Education factor in the Low Hostility-Aggression group,  $t$  tests were performed on all Rorschach variables scored according to the Urist and Klopfer scoring systems. Four variables were found to discriminate, at least to some degree, the five sisters in public school from the seven sisters in private school. Table 9 presents the  $t$  tests for these findings. It is observed that the private school girls substantially exceed the public school girls in Extended (Ext) F+% and tended to exceed them in M+, FM+, and

Table 9

Low Hostility-Aggression Group Comparison of Sister Education Factor Resulting in Significant Rorschach Differences

Variable	School	Mean	S.D.	t Value	Signif
Ext F+	Public <sup>1</sup>	45.39	15.45	3.32	p < .01
	Private <sup>2</sup>	84.41	22.64		
M+	Public	.80	.84	2.19	p < .10
	Private	2.86	1.95		
FM+	Public	1.40	1.14	2.19	p < .10
	Private	3.43	1.81		
Total O-R	Public	3.40	4.56	2.09	p < .10
	Private	7.71	2.63		

<sup>1</sup> Low Hostility-Aggression group girls attending public school: N = 5

<sup>2</sup> Low Hostility-Aggression group girls attending private school: N = 7

Total Object Relations scores. The Ext F+ value is significant at the  $p < .01$  level. While the means of the remaining three variables do not yield statistically significant differences, they do represent trends towards significance. The private school girls tended to produce more M+, FM+, and Total O-R scores than did those girls who attended public school in the Low Hostility-Aggression group.

## Chapter IV

### DISCUSSION

This chapter will begin with a review of the hypotheses investigated in this study. The results presented in the previous chapter will then be summarized, followed by a discussion of the limitations of the study and implications of the findings. Finally, suggestions for future research related to this area of study will be made.

#### Research Findings

Two hypotheses were tested in this investigation. The hypotheses proposed that dividing the sample into two groups based on mother's reports of their sons as relatively more or less aggressive, would result in marked group differences in the quality of the sisters' Rorschach protocols. More specifically, the first hypothesis suggested that sisters of the more aggressive brothers would produce Rorschach records characterized by malevolent or toxic object representational scores as measured by the Urist Mutuality of Autonomy Scale. The second hypothesis proposed that in comparison with the sisters of the less aggressive brothers, those whose brothers were rated as relatively more aggressive might

produce Rorschach scores characterized by significant constriction manifested by a lack of both affective and human responses as measured by the Klopfer scoring system.

Neither hypothesis was supported by the analysis of the present data. The girls with the more aggressive brothers did not demonstrate a greater incidence of malevolent or toxic object representational scores as measured by the Mutuality of Autonomy Scale scores. When Total Object Relations (O-R) scores, Highest O-R, Lowest O-R, Mean, Median and Mode O-R scores were compared across groups using both parametric and non-parametric procedures, no significant group differences were found. Similarly, the hypothesis that girls of more aggressive brothers would produce Rorschach protocols characterized by significant constriction manifested by a lack of affective and human responses was not supported.

The hypotheses were originally proposed based upon the contention that siblings can have a powerful impact upon not only each other's external behavior style, but also, upon internal experiences. Existing research on the sibling relationship has shown that despite recent documentation of the significance of this relationship, few researchers have addressed the effect siblings may have on each other's internal object representations, and none have specifically investigated the inner

experience of a girl in middle childhood as possibly determined by her relationship to an older brother. While Freudian theory emphasized the oedipal constellation as the primary determinant of intrapsychic experiences, later researchers have put forth strong arguments in support of the notion that siblings may indeed also significantly affect intrapsychic experiences and interpersonal relationships. The present study was conceptualized as an outgrowth of that line of thinking and the hypotheses were proposed as a means of further exploring the role a sibling relationship may have in the development of internal object representations. The fact that the hypotheses were not confirmed raises a number of questions and speculations about possible limitations of both the methodological and conceptual framework of this study. Although the basic hypotheses of this study were not confirmed, several variables were found to differ across groups. These will be discussed later in this chapter.

#### Limitations of the Study and Possible Implications

The most prominent drawback which became evident following the analysis of the data involves the demarcation of the two groups. Attempts to define two separate groups of brother-sister pairs were not based on objective, "hard" data and, therefore, it was not possible to ascertain whether the two groups differed sufficiently to yield results which may have more fully

confirmed the hypotheses. The division of the subjects into two groups was based solely upon mothers' ratings of their son's level of aggressiveness as determined by two subscales of the Achenbach Child Behavior Checklist. While some of the boys from the clinic population had been diagnosed as either Conduct Disordered or having some form of aggressive behavior problem, and in many cases had been referred for treatment as a result of aggressive acting out behaviors, it was not possible to select a subgroup in which a consistent diagnostic or descriptive picture of aggressive behavior was evident. While I had considered seeking additional ratings from individuals other than the mothers, this proved to be unfeasible. Father's independent ratings of their son's behavior were ruled out as in many cases, they were neither living with the family, nor were in any way accessible for interviewing. Similarly, it was impossible to enlist the cooperation of teachers to provide independent ratings of the boy's behavior. Thus, there was no objective external verification or confirmation of mother's ratings of level of aggression. While the Achenbach CBCL is a standardized, norm-referenced instrument, it does not account for bias on the part of the mothers, nor can it take into consideration variation in the mother's subjective experience and description of an "aggressive" or "hostile" behavior. Although the CBCL is comprised of

highly specific descriptions of behavior, respondents may interpret the questions differently as a result of their own conscious or unconscious experiences and attitudes. For example, the item "cruelty, bullying or meanness to others" may be answered by mothers who have widely discrepant perceptions of what characterizes cruel or mean behavior.

As noted in Chapter I, parents are in many cases unaware of the extent of abusive behaviors their child may be perpetrating. Furthermore, cruelty or bullying behavior both within and outside the home may be a common expectable baseline in one family and, therefore, accepted, condoned, or even sanctioned either consciously or unconsciously, as part of everyday life. In another family, the same behaviors may be strongly discouraged, forbidden, or punished.

It was also shown in Chapter I that a child may abuse his or her sibling as a form of collusion with the unconsciously expressed wishes or needs of a parent. For example, parents who experience difficulty managing their aggression may derive vicarious gratification of their poorly integrated, forbidden impulses by the acting out of their child and, as a result, may exhibit permissiveness and inconsistent setting of limits. On the other hand, a parent may be highly sensitive and opposed to any show of aggression due to his or her own particular history or reactions, and may overreact to

rather mild displays of discord between children in the family. Given this, it would seem that a parent who condones abusive acts could report and rate them substantially differently than the parent who does not tolerate these acts. In a similar vein, a parent may harbor hostile impulses toward one child for a variety of reasons and may unknowingly enlist another child in the family to act out those impulses. Many researchers (Easson & Steinhilber, 1961; Johnson & Szurek, 1952; Rodriguez, 1977; Sargent, 1962; Tooley, 1977) have documented the significance of this variable in situations where aggressive sibling interactions predominate. Therefore, one problematic aspect of the present study is that questionnaires rather than direct observations were relied upon as the primary means of gathering data from the mothers. As a result, the possible discrepancy between the mothers' reports and their actual reactions and behavior vis a vis their children was obscured. This obscurity may exist in regard to both the conscious reactions of the mothers and to those feelings, needs and reactions of which the parent is unaware, and may result in some degree of distortion in their reporting. Thus, the responses of parents to a questionnaire regarding their child's aggressive behaviors might be highly influenced by their own needs and, therefore, less reliable than would be desired.

Finally, related to these considerations is the possible discrepancy between how the mother perceives her child, what she feels about him, and what she actually is willing or able to present on a behavioral checklist. Although all mothers in the study were informed of the anonymity and confidentiality of all information, it was impossible to control for the possibility that they may not have accurately presented their actual impressions of their sons' behavior or the interaction between the children.

It is evident from the above discussion that the lack of any objective rating of the behavior of the brothers may have precluded our knowing whether the "High Aggressive" brothers were actually substantially more abusive to their sisters than those in the "Low Aggressive" group. Support for these considerations is found in the discrepancy between the mothers' reports (on both the CBCL and the Parent Questionnaire) and the daughters' reports as measured by the Sister Questionnaire. Perceptions of mothers and daughters clearly differ considerably with regard to their respective experience of the sons/brothers degree of aggression. This discrepancy between mothers and sisters occurred across both groups and was not a function of the High Aggressive or Low Aggressive group differentiation. Although no inter-group differences were discerned, the discrepancy was clearly shown in the

total sample. This underscores the aforementioned point that family members may perceive, experience and describe the behavior of a particular family member quite differently. Perceptions and responses particularly around the potentially charged issue of aggressive behavior may vary considerably. One may suspect that even if it had been possible for fathers to consistently fill out CBCL's on their sons in order to cross-validate mother's ratings, these, also, may not have provided a reliable, objective assessment.

Regarding the discrepancy in mother and daughter ratings in the total sample, it must be noted that mothers and daughters were not presented with identical instruments. Furthermore, whereas the mothers had responded in written form to a five-point rating scale on the Parent Questionnaire, the daughters' responded verbally to orally presented items and were given a three-point choice of responses. Thus, the daughters responses required verbal interaction with the interviewer while those of the mothers did not. In addition, the Sister Questionnaire was presented to the girls as the final instrument out of four that were administered to them. It is possible that the girl's verbal responses and reactions to this questionnaire may have been influenced by feelings elicited by the Rorschach and Figure Drawings that had been administered prior to the questionnaire. These factors may partially

account for differing responses by mothers and daughters.

While more definitive conclusions may have been possible if the mother-daughter pairs had in fact responded to an identical set of questions, the disparity in their reports of the brothers' display of aggression toward his sister is nonetheless still interesting to consider. Mother-daughter pairs presented dissimilar impressions of the boys in question in every case in the sample. There was no pair in either group in which both mother and daughter rated the brother identically and we have no way of knowing whose report is a more accurate description of the brother's behavior. For example, as indicated in Chapter III, six girls in the Low Hostility-Aggression group described their brothers as more aggressive than did the mothers, while in the remaining six cases, the mothers rated the boys as being more aggressive than did the girls. A discrepancy was also found in the mother-daughter ratings of the High Hostility-Aggression group where in seven cases, the mothers described their sons as being more aggressive than did the daughters, while in five cases, the girls reported their brothers to be more aggressive than did the mothers. This discrepancy lends support to the idea that individuals in a family may experience and/or describe a particular family member differently, and that objective reporting, particularly

regarding the question of aggression, may be impossible.

Another limitation of the study may have to do with age spacing of the sibling pairs. Several of the researchers discussed in Chapter I have suggested that the relationship between siblings close in age may in many cases differ markedly from that of siblings with a wider age spacing, and that the developmental differences may significantly affect the quality of the sibling relationship (Bank & Kahn, 1982; Bigner, 1974; Bryant, 1982; Longstreth et al., 1975; Solnit, 1983; Steinmetz, 1977; Sutton-Smith & Rosenberg, 1970). Some have argued that research on siblings has been characterized by too broad of an age grouping of siblings (Bryant, 1982; Legg et al., 1974). Solnit (1983) specifically suggests that when siblings are separated by many years and are managing different developmental challenges, the sibling relationship is frequently more neutral and less emotionally charged. Many of these authors concur that a relationship of siblings more than five years apart will differ markedly from that of siblings separated by only two or three years, in part as a result of widely discrepant developmental stages. Given these considerations, one may speculate that the results of the present study were affected by the lack of a consistent age spacing between the sibling pairs studied. Although no significant difference was found in the age difference variable in

the brother-sister pairs across groups, so that this variable did not affect results of inter-group comparisons, a rather wide range of age differences was found in the overall sample, leading to intra-group differences which may have confounded the results. The sibling pair closest in age in the overall sample differed by 2.1 years while the pair with the widest age discrepancy differed by 8.6 years, clearly evidencing a broad range. Both of these subject pairs were from the High Hostility-Aggression group. However, a similar discrepancy was found in the age difference variable in the Low Hostility-Aggression group where the sibling pair closest in age differed by 2.4 years and the pair with the widest age discrepancy differed by 7.8 years. Thus, broad differences in age spacing in the sibling pairs occurred in both groups. It is likely that a girl eight years younger than her brother would experience him quite differently than would one two or three years younger, as a result of developmental considerations alone. The variety in the age differences of pairs in the overall sample may have significantly influenced the intergroup comparisons. In retrospect, a sample comprised of sibling pairs with a more uniform age difference would have diminished the possible intrusion of this factor.

One additional factor which may have limited the possibility of the hypotheses being confirmed involves

the use of the Rorschach with the particular population studied in this project. Previous Rorschach research which has addressed the question of internal object experiences has involved study of pathological rather than normative populations. The present study involved girls who were, by contrast, ostensibly from a normative population. It is possible that the Rorschach may not be a sensitive enough instrument to detect object representation differences in this sample, or that the groups of girls themselves may not have actually differed sufficiently for the Rorschach to discriminate differences.

#### Significant Findings

It has been shown that methodological limitations of the study precluded an objective and definitive demarcation of the total sample into two sufficiently different groups and that this factor contributed to the hypotheses being disproven. Given these limitations, a review of the results which were found to be statistically significant becomes somewhat problematic and one is left primarily with speculations about their meaning. These findings will be considered at this point.

First, mothers who rated their sons as more aggressive on both the CBCL and the Parent Questionnaire scale (i.e., that which rated the level of aggression the brother displayed specifically toward his sister)

also interestingly described their daughters as more aggressive on the "Aggressive" subscale of the CBCL. Although it has been shown above that mothers' ratings of aggression may be less than objective, it is striking that the degree to which they rated their sons as more aggressive correlated strongly with their ratings of their daughters as aggressive as well. Girls who were consistently rated by their mothers as evidencing both above the normal range of aggressive behavior as well as overall behavior problems, had brothers who were also rated by their mothers as more aggressive. In addition, mothers who rated their sons as less aggressive, similarly described their daughters as both less aggressive and evidencing fewer overall behavior problem scores. One may speculate that this finding is once again representative of a bias on the part of the mothers, and that those mothers who view their sons as more aggressive, may similarly perceive their daughters as more aggressive. On the other hand, one might consider that certain families are simply more "aggressive" than others and that the mothers are accurately depicting an aggressive level of behavioral interaction that may typically characterize the overall quality of family relationships. Whether this is due to the mother's greater acceptance of or oversensitivity to displays of aggression is open to question at this point, but it leads to further consideration. One

wonders whether some sisters of the reportedly more aggressive brothers, may imitate their brothers or use the defense of identification with the aggressor, and like their brothers, display more aggressive actions or behavior problems than do the sisters of the reportedly less aggressive boys. If this were the case, it is possible that the brothers' aggression did not lead directly to the girls' experience of inner malevolence. These girls may not, in fact, internally experience themselves as victims dominated by their brothers' aggression and malevolence and, rather than developing a stance of passivity or compliance, they become active battlers who openly display their own aggressive impulses.

This may suggest, once again, that the present sample of subjects did not differ sufficiently in their phenomenological experience of their brothers to result in confirmation of the hypotheses. Girls in the Low Aggressive group may not have seen themselves as victims of a malevolent, domineering force because their brothers were, in fact, not manifestly aggressive. Therefore, these girls would not produce significantly low Mutuality of Autonomy Scale scores. Similarly, sisters of the more aggressive brothers may also not have experienced themselves as victims of their brothers' aggressive behaviors because, as noted above, rather than internalizing malevolent or toxic object

representations, they actively respond to their brothers aggressiveness by becoming behaviorally more aggressive themselves, and responding overtly. This may shed light upon the interesting finding that, contrary to the expectations proposed in the second hypothesis, the sisters in the High Aggressive group produced significantly more total Rorschach responses than did those of the Low Aggressive brothers. As indicated earlier, the number of total responses a subject produces has been interpreted by several researchers as a sign of productivity (Allison et al., 1968; Ames et al., 1974; Klopfer et al., 1954). One may speculate that the girls in this study who are more active in their outward display of aggression are more actively productive in their responses to and verbalizations of their perceptions of the Rorschach inkblots.

One is left with one Rorschach finding which is difficult for the author to explain. As indicated in Chapter III, in addition to producing more total Rorschach responses, the sisters in the High Aggressive group also produced more M- scores than did those in the Low Aggressive group. The M- Rorschach score (Human Movement, poor form level rating) is considered by various authors to be a pathognomonic indicator. It has been suggested that M- can be representative of seriously impaired reality testing and defective ego organization (Klopfer et al., 1954), possible

pre-psychotic or psychotic conditions (Rapaport, Gill, & Schafer, 1968; Urist, 1976), and a distortion in both identification and empathy with others as well as the possibility of pathological projection (Allison, Blatt, & Zimet, 1968).

The above Rorschach researchers have also suggested that the Human Movement response is frequently seen to be indicative of aspects of a person's self-representation. The quality of an M response can demonstrate the vitality, vigor, frailty, complexity, shallowness, and additional subtle qualities of the self-representation. Therefore, the M- response may indicate a distortion or disturbance in the person's self-representation. In contrast, the Urist Mutuality of Autonomy scale measures perceptions of actual interactions between figures with particular emphasis upon whether they are seen as separate and autonomous. There is frequent overlap in the scoring of responses: many responses can receive both M and a Urist MOA scale score. For example, the response, "Two people dancing together" would receive the score of M as well as a MOA scale score of 1. On the other hand, a response such as "Person walking through the forest" would be scored M but would not receive a MOA scale score because there is no depiction of interaction with another object. Therefore, the M and Urist MOA scores are dissimilar in that the M has to do with the representation of the self while MOA scores

relate to a perceived relationship between self and object.

Given this distinction between M and Urist scores, it is interesting to consider the fact that the girls in the High Hostility-Aggression group produced a significantly greater number of M- responses than did the girls in the Low Hostility-Aggression group, despite a lack of significant group differences in MOA scale scores. If the M- score can be seen as indicative of both increased ego impairment and a distortion in self-representation, it appears that the girls of the brothers described by mothers as more aggressive showed more disturbance in these areas although their Urist scores did not reveal greater disturbance in the level of their internal object representations. One might speculate that this could be a function of the interaction with and influence of their older brothers. It must be emphasized, however, that because of the methodological limitations described earlier in this chapter, discussion of this M- finding remains speculative.

Finally, several comments will be made regarding the remaining significant findings. It was noted in Chapter III that the single demographic variable which differed significantly across groups was whether the girls attended public or private schools. Significantly, more girls in the Low Hostility-Aggression group attended

private schools than in the High Hostility-Aggression group. However, the conclusions that can be drawn from this factor are limited because no noteworthy group differences were found in the remaining demographic factor comparisons. Most importantly, the socio-economic status of the families in Groups 1 and 2 did not differ substantially. Therefore, one cannot conclude that in the present sample, S.E.S. differences (i.e., type and level of parent's employment, income, level of affluence) were determining factors in the choice of school for the girls.

While this group difference is inconclusive, the differences in public/private school enrollment among the subjects resulted in a further interesting finding. One statistically significant result emerged regarding the mother-daughter disparity within the Low Hostility-Agression group. Here, it was found that among the group of subjects whose brothers were rated by mothers as less aggressive, a subset of seven girls attended private schools while five attended public schools. Six out of the seven sisters who attended private schools described their brothers as even less aggressive towards them than did the mothers. In contrast, all of the girls in this group who attended public schools described their brothers as being more aggressive than did their mothers. Interestingly, the one youngster out of twelve in the High Hostility-

Aggression group who attended a private school also rated her brother as acting considerably less aggressively toward her than her mother reported. (She provided the second to most extreme disparity from her mother's perception of all subjects in the High Hostility-Aggression group.) Perhaps this points out that the SES scale fails to capture a key value issue about how people spend their discretionary income and whether they choose to spend it on private schooling for their daughters. This question may conceivably influence how the mothers complete the questionnaires. One might speculate that the mothers who wish to pay for their daughter's attendance in private schools are also less willing to report their son's aggressive behaviors. One might also question whether the private schools have a particularly "refining" influence on the students which could result in these girls muting or inhibiting their criticisms of their brothers.

When Rorschach scores of the two subsets of girls in the Low Hostility-Aggression group (public and private school subsets) were compared, four variables were found to discriminate to some degree the seven sisters in public schools from the five in private schools. It was observed that the private school girls significantly exceeded the public school girls in Extended F+% scores, and also tended to produce more M+, FM+, and Total Object Relations scores. Thus, these girls demonstrated

a considerably greater number of good reality testing scores. They also provided more good form Human Movement scores, indicative of a rich inner life, imagination, creativity and development in the concept of the self. These youngsters also produced more FM+ responses than did the subset of public school girls. FM+ can be indicative of the less controlled, more impulsive aspects of a person's inner life. As FM+ scores are typical and expected in children's Rorschach protocols, definitive conclusions cannot be drawn regarding this finding. The private school girls also provided somewhat more Total Object Relations scores in the Low Aggressive group than did the girls in public schools. One might infer from the combination of these Rorschach variables that the girls in this group who attended private schools demonstrated somewhat more ego strengths than those who attended public schools.

#### Implications for Future Research

The hypotheses set forth in this study were not supported by the analysis of the data. While data analyses yielded a number of statistically significant findings, the discussion of these results has remained speculative given various limitations in the methodological conceptualization of the study. These limitations have significantly restricted the generalizability of the findings. Future research in this area of study must consider these limitations and

make changes in the construction of the experiment if more definitive conclusions are to be drawn.

Most importantly, it was impossible to satisfactorily assess whether the ratings of brothers as more or less aggressive were accurate given the possibility of bias in the mothers' reports. In light of this factor, it cannot be said with certainty that the two groups actually differed sufficiently to yield significant results. In a future study objective, reliable, external ratings of the boys' levels of aggression would be imperative. It would be necessary that these ratings be independent of the possible effects of parental bias. The most objective means of more accurately rating brother's behavior could be for the researcher to do a series of home visits in which family interactions were closely observed. Interactions of brothers and sisters would be noted and rated according to a specifically defined set of criteria, with particular scores for the quality, quantity, and degree of aggressive or malevolent behaviors.

In addition to observations, it would be interesting to have Rorschach records of the brothers as well as the sisters being studied. While the present study specifically addressed the question of a sister's internal object experience as possibly determined by her brother's behaviors, an additional and perhaps more subtle approach would be to also assess the brother's

inner life as measured by the Rorschach. In a future study results of the boys' testing could be utilized in the determination of distinct groups. With data about the boys generated from both home observations of them and their Rorschach protocols, a more complete and objective assessment might be possible.

It has been suggested that the wide age discrepancy in individual sibling pairs, and the lack of a consistent spacing in pairs in the total sample may have affected the results of the study. It is recommended for future studies that a sample comprised of sibling pairs with a more uniform age difference would diminish the potential intrusion of this factor.

The present project was conceptualized as an exploratory, preliminary study in an area of research that had received little previous attention. For this reason, the relatively small sample size was seen to be sufficient for the purpose of making an initial exploration. A future study may yield more generalizable findings if, in addition to making changes indicated above in the methodological design of the study, a larger sample size were used.

Finally, the focus of the present study has been limited to the possible effects of an older brother may have on his younger sister. Interesting contributions to this area of research could also be made by investigating the impact of different sibling

relationships. For example, might internal object experiences of a younger sibling differ based on the relationship to an older brother versus an older sister? Similarly, what differences may be evidenced in the impact of an older sibling on a younger brother rather than a sister? Such research would broaden the scope of investigation which was engendered by the present study.

This study was undertaken in order to explore a specific aspect of the sibling relationship which has previously received little attention. The original hypotheses were not confirmed. Due to a combination of methodological and conceptual limitations, the meaning of these results remains inconclusive. It is therefore hoped that future research will continue to address questions regarding the impact older siblings may have upon the internal experiences of their younger brothers and sisters.

APPENDIX A  
INFORMATION SHEET



**MADELEINE BORG COMMUNITY SERVICES**  
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SEYMOUR R. ASKIN, JR., *Chairperson* **APPENDIX A**  
 LYNN OHRENSTEIN, D.S.W., *Director*

### INFORMATION SHEET

**DIVISIONAL COMMITTEE**  
 MRS. JOSEPH W. BEATMAN  
 MRS. RICHARD J. BLUM  
 MRS. RICHARD W. DAMMANN  
 SIDNEY R. DEIBNER  
 MRS. MYRON S. FALK, JR.  
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 MRS. EDWARD A. ROSENTHAL  
 MRS. EDWARD SILVERA  
 DAVID SWEET  
 MRS. N. H. USON  
 PHYLLIS WEAVER

MORRIS BLACK  
*Director, Community Services*

The Madeleine Borg Counseling Services of the Jewish Board of Family and Children's Services, where you and/or a member of your family are currently receiving counseling, has for many years been committed to helping families with problems in the raising of their children. We have noticed that particular difficulties can arise in the relationship between brothers and sisters in the family.

As a parent, you certainly know that the relationship between brothers and sisters can be a very complicated and important one. You may not know, however, that very little research has been done to help us to more fully understand the nature and meaning of this relationship. We would like to learn more about this and thereby be helped to provide more appropriate services and programs to families. For this reason, a study is being conducted at the Jewish Board of Family and Children's Services to better understand various aspects of how brothers and sisters affect each other's growth and development. We would like those of you who have a son between the ages of 12 and 15 and a daughter between the ages of 7 and 10 to participate in this important study.

Ms. Julie Buchwalter, a staff member at our Manhattan East office, will be conducting this research. She will contact you by telephone and at that time, you may ask any questions you have. Hopefully, Ms. Buchwalter will then be able to arrange a time to meet with you and your daughter. Participation will include 1) your filling out questionnaires about your son and daughter and 2) Ms. Buchwalter meeting with your daughter to administer three brief psychological tests. No direct meeting with your son will be necessary. The work will in no way involve any risk to you or your daughter, nor will it in any way affect the services you receive at J.B.F.C.S. All information that you provide will be kept strictly confidential; names and identifying information will not be used so as to insure complete anonymity for you and your children.

Your contribution to this study will involve only one meeting with the researcher which will be arranged at your convenience. We very much hope that you will agree to participate in this very important project.

Thank you in advance for your most needed cooperation.

A DIVISION OF THE JEWISH BOARD OF FAMILY AND CHILDREN'S SERVICES, INC.  
 DORIS L. ROSENBERG, *President*                      JEROME M. GOLDSMITH, Ed.D., *Executive Vice-President*  
 JBFCSS is a teaching center of the Columbia University School of Social Work.



APPENDIX B  
REVISED INFORMATION SHEET FOR NON-CLINIC SUBJECTS

**APPENDIX B****Revised Information Sheet  
for Non-Clinic Subjects**

Dear Parent:

I would like to ask you to take part in a study I am conducting on the relationship between brothers and sisters. This research, conducted under the auspices of the Clinical Psychology Department of the City University of New York and the Jewish Board of Family and Children's Services, Inc., will help us learn more about the ways in which brothers and sisters affect each other's growth and development.

As a parent, you certainly know that the relationship between brothers and sisters can be a very complicated and important one and that particular difficulties can arise in this relationship. You may not know, however, that very little research has been done to help us to more fully understand the nature and meaning of this relationship. We would like to learn more about this and thereby be helped to better understand the many complex factors that can influence the effects brothers and sisters can have upon each other.

I am hoping that those of you with a son between the ages of 12 and 16 and a daughter between the ages of 7 and 10 will be interested in and willing to participate in this important study. I would like to contact you by telephone and at that time, you may ask any questions you have. Hopefully, I will then be able to arrange a time to meet with you and your daughter. Participation will include 1) your filling out questionnaires about your son and daughter and 2) my meeting with your daughter to administer three brief psychological tests. No direct meeting with your son will be necessary. The work will in no way involve any risk to you or to your daughter. All information that you provide will be kept strictly confidential; names and identifying information will not be used so as to insure complete anonymity for you and your children.

Your contribution to this study will involve only one meeting with the researcher which will be arranged at your convenience. I very much hope that you will agree to participate in this very important project.

Thank you in advance for your most needed cooperation.

Sincerely,

*Julie Buchwalter*

Julie Buchwalter

APPENDIX C

AUTHORIZATION LETTER PROVIDED BY PRIVATE HIGH SCHOOL

## APPENDIX C

TELEPHONE (212) 548-4000

## HORACE MANN SCHOOL

231 WEST 246TH STREET • BRONX, N. Y. 10471

November 14, 1986

Dear Parents,

The Guidance Department has been asked by Miss Julie Buchwalter to participate in a research project she is conducting on various aspects of the sibling relationship. Miss Buchwalter is studying for her doctoral degree in clinical psychology at the City University of New York, and her study is being conducted under the auspices of the Jewish Board of Family and Children's Services, Inc. Mr. Newcombe, our Headmaster, has approved this project which will be under my direct supervision.

Enclosed you will find an information sheet which describes the project. We find this to be an important area of research and hope that you will be able to participate in the study.

Please return the bottom tear-off portion of this page to Julie Buchwalter in the enclosed envelope as soon as possible, indicating whether you will participate. If you have any questions, you may call Miss Buchwalter at (212)595-0244.

Thank you for your cooperation.

Sincerely,



William R. Clinton  
Dean of Guidance

WRC:tm  
enclosure

-----  
\_\_\_\_\_ I will participate in this research project.

\_\_\_\_\_ I would like to discuss the study further with the researcher.

\_\_\_\_\_ I will not participate in this project.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Telephone Number

APPENDIX D  
INFORMED CONSENT

THE CITY COLLEGE  
OF  
THE CITY UNIVERSITY OF NEW YORK  
NEW YORK, N.Y. 10031

THE PSYCHOLOGICAL CENTER  
DEPARTMENT OF PSYCHOLOGY

**APPENDIX D**

(212) 690-6602, 3, 4

INFORMED CONSENT

PLEASE READ CAREFULLY

Dear Parent:

I would like to ask you to take part in a study I am conducting on the relationship between brothers and sisters. This research, conducted under the auspices of the Clinical Psychology Department of the City University of New York and the Jewish Board of Family and Children's Services, Inc., will help us learn more about the ways in which brothers and sisters affect each other's growth and development. In this study you will be asked to fill out a checklist describing the behavior of both your son and your daughter. You will be provided with a separate checklist for each child. You will also be asked to complete a questionnaire which will address specific aspects of the relationship between your son and your daughter as you see it. In addition, the study will involve my meeting with your daughter, conducting a short interview, and administering three brief psychological tests.

I would like to emphasize that all information you give will be kept strictly confidential. Also, names will not be used in order to insure your complete anonymity. I will be happy to answer any questions that you may have about participating in this study and about the tasks that you and your child will be completing. These procedures do not involve any risk to you or your daughter. You may withdraw your consent at any time without loss of services to which you and/or your children are otherwise entitled at the Jewish Board of Family and Children's Services, Inc.

Your signature at the bottom of this page indicates that you agree to participate in this study and that you have an understanding of what it will involve.

Thank you in advance for your cooperation.

\_\_\_\_\_  
Parent's signature

\_\_\_\_\_  
Julie Buchwalter

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

AN EQUAL OPPORTUNITY EMPLOYER

APPENDIX E  
INFORMED CONSENT FOR NON-CLINIC SUBJECTS

THE CITY COLLEGE  
OF  
THE CITY UNIVERSITY OF NEW YORK  
NEW YORK, N.Y. 10031

THE PSYCHOLOGICAL CENTER  
DEPARTMENT OF PSYCHOLOGY

(212) 690-6602. 3, 4

APPENDIX E

Informed Consent for Non-Clinic Subjects

Dear Parent:

I would like to ask you to take part in a study I am conducting on the relationship between brothers and sisters. This research, conducted under the auspices of the Clinical Psychology Department of the City University of New York and the Jewish Board of Family and Children's Services, Inc., will help us learn more about the ways in which brothers and sisters affect each other's growth and development. In this study you will be asked to fill out a checklist describing the behavior of both your son and your daughter. You will be provided with a separate checklist for each child. You will also be asked to complete a questionnaire which will address specific aspects of the relationship between your son and your daughter as you see it. In addition, the study will involve my meeting with your daughter, conducting a short interview, and administering three brief psychological tests.

I would like to emphasize that all information you give will be kept strictly confidential. Also, names will not be used in order to insure your complete anonymity. I will be happy to answer any questions that you may have about participating in this study and about the tasks that you and your child will be completing. These procedures do not involve any risk to you or your daughter. You may withdraw your consent at any time.

Your signature at the bottom of this page indicates that you agree to participate in this study and that you have an understanding of what it will involve.

Thank you in advance for your cooperation.

\_\_\_\_\_  
Parent's signature

\_\_\_\_\_  
Julie Buchwalter

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

APPENDIX F  
ACHENBACH CHILD BEHAVIOR CHECKLIST  
AND REVISED CHILD BEHAVIOR PROFILES

PLEASE NOTE:

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These consist of pages:

P. 193-198

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**APPENDIX G**  
**PARENT QUESTIONNAIRE**

## APPENDIX G

PARENT QUESTIONNAIRE

I am going to ask you a series of questions about how your son and daughter get along with each other. Please read each question carefully and then answer to the best of your ability how frequently each behavior has occurred in the past six months. A space will be provided for each response following each question.

Thank you again for your cooperation.

- \* 1) Does your son tease your daughter or use her as a target for his jokes?

<u>6</u>	<u>8</u>	<u>7</u>	<u>3</u>	<u>0</u>
Very Often	Often	Sometimes	Rarely	Never

- 2) Does your son nag or criticize your daughter (i.e., complain about her neatness, criticize her appearance, her friends, her intelligence, etc.)?

<u>2</u>	<u>6</u>	<u>10</u>	<u>4</u>	<u>2</u>
Very Often	Often	Sometimes	Rarely	Never

- 3) Does your son praise and compliment your daughter for her assets and talents?

<u>1</u>	<u>1</u>	<u>13</u>	<u>3</u>	<u>6</u>
Very Often	Often	Sometimes	Rarely	Never

- 4) Does your daughter nag or criticize your son (i.e., complain about his neatness, criticize his appearance, his friends, his intelligence, etc.)?

<u>2</u>	<u>1</u>	<u>14</u>	<u>4</u>	<u>3</u>
Very Often	Often	Sometimes	Rarely	Never

- \* 5a) Does your son verbally taunt, bully, or threaten your daughter in a hostile manner?

<u>1</u>	<u>7</u>	<u>9</u>	<u>4</u>	<u>3</u>
Very Often	Often	Sometimes	Rarely	Never

5b) If so, does your daughter

<u>0</u>	<u>2</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>7</u>
Withdraw passively	Pout or cry	Tell parents	Stand up for herself	Verbally retaliate	Strike out at him

6a) Does your son raise his voice at your daughter?

<u>2</u>	<u>9</u>	<u>11</u>	<u>2</u>	<u>0</u>
Very Often	Often	Sometimes	Rarely	Never

6b) If so, does he yell loudly or scream at her?

<u>0</u>	<u>5</u>	<u>16</u>	<u>2</u>	<u>1</u>
Very Often	Often	Sometimes	Rarely	Never

\* 7). Does your son curse your daughter or use profanity when addressing your daughter?

<u>0</u>	<u>3</u>	<u>16</u>	<u>6</u>	<u>9</u>
Very Often	Often	Sometimes	Rarely	Never

8) Does your daughter appear to look up to and idealize your son?

<u>1</u>	<u>6</u>	<u>12</u>	<u>2</u>	<u>3</u>
Very Often	Often	Sometimes	Rarely	Never

9a) Does your son tickle your daughter?

<u>0</u>	<u>3</u>	<u>9</u>	<u>4</u>	<u>8</u>
Very Often	Often	Sometimes	Rarely	Never

9b) If so, does being tickled appear to be a pleasurable experience for your daughter?

<u>1</u>	<u>5</u>	<u>6</u>	<u>2</u>	<u>5</u>
Very Often	Often	Sometimes	Rarely	Never

9c) Or does it result in her being angry or upset?

<u>1</u>	<u>0</u>	<u>10</u>	<u>2</u>	<u>3</u>
Very Often	Often	Sometimes	Rarely	Never

\*10) Does your son hit or slap your daughter?

<u>0</u>	<u>1</u>	<u>9</u>	<u>8</u>	<u>6</u>
Very Often	Often	Sometimes	Rarely	Never

11) Does your son initiate affectionate, loving physical contact with your daughter, i.e., hugging her, putting his arm around her, kissing her, etc.?

<u>0</u>	<u>2</u>	<u>8</u>	<u>4</u>	<u>10</u>
Very Often	Often	Sometimes	Rarely	Never

12a) Do your children wrestle?

<u>1</u>	<u>5</u>	<u>8</u>	<u>4</u>	<u>6</u>
Very Often	Often	Sometimes	Rarely	Never

12b) If so, who initiates the wrestling?

SON: <u>2</u>	<u>3</u>	<u>9</u>	<u>1</u>	<u>2</u>
Very Often	Often	Sometimes	Rarely	Never

DAUGHTER: <u>0</u>	<u>2</u>	<u>6</u>	<u>5</u>	<u>4</u>
Very Often	Often	Sometimes	Rarely	Never

\*12c) If your children wrestle, does it need to eventuate in your son pinning your daughter down?

<u>2</u>	<u>1</u>	<u>4</u>	<u>3</u>	<u>6</u>
Very Often	Often	Sometimes	Rarely	Never

13) Does your son kick or trip your daughter?

<u>0</u>	<u>1</u>	<u>6</u>	<u>5</u>	<u>12</u>
Very Often	Often	Sometimes	Rarely	Never

14a) When playing competitive games (i.e., board games or sports), is it important to your son that he win?

<u>6</u>	<u>7</u>	<u>6</u>	<u>3</u>	<u>1</u>
Very Often	Often	Sometimes	Rarely	Never

14b) If so, does your daughter passively accept defeat?

<u>1</u>	<u>1</u>	<u>6</u>	<u>7</u>	<u>8</u>
Very Often	Often	Sometimes	Rarely	Never

14c) Or, does she become upset or angry and retaliate?

<u>3</u>	<u>5</u>	<u>8</u>	<u>3</u>	<u>4</u>
Very Often	Often	Sometimes	Rarely	Never

15a) Does your son ever cheat in order to win games with your daughter?

<u>1</u>	<u>6</u>	<u>6</u>	<u>5</u>	<u>4</u>
Very Often	Often	Sometimes	Rarely	Never

15b) If so, does your daughter

<u>0</u>	<u>1</u>	<u>2</u>	<u>11</u>	<u>5</u>
Withdraw passively	Pout or cry	Tell parents	Confront him assertively	Have temper tantrum

16) Does your son let your daughter win games in which he has more skill?

<u>1</u>	<u>0</u>	<u>4</u>	<u>5</u>	<u>12</u>
Very Often	Often	Sometimes	Rarely	Never

17) Does your son appear to compete with your daughter to gain your exclusive attention?

<u>1</u>	<u>4</u>	<u>9</u>	<u>7</u>	<u>3</u>
Very Often	Often	Sometimes	Rarely	Never

18) Does your son become angry if your daughter has a period of your exclusive attention?

<u>1</u>	<u>0</u>	<u>9</u>	<u>7</u>	<u>7</u>
Very Often	Often	Sometimes	Rarely	Never

19) Does your daughter become angry if your son has a period of your exclusive attention?

<u>3</u>	<u>4</u>	<u>8</u>	<u>4</u>	<u>5</u>
Very Often	Often	Sometimes	Rarely	Never

20) Does your son blame your daughter for incidents resulting from his own misbehavior?

<u>2</u>	<u>5</u>	<u>5</u>	<u>8</u>	<u>4</u>
Very Often	Often	Sometimes	Rarely	Never

- 21) Does your son attempt to provoke you or your spouse to punish or become angry at your daughter?
- |            |          |           |          |          |
|------------|----------|-----------|----------|----------|
| <u>0</u>   | <u>3</u> | <u>8</u>  | <u>7</u> | <u>6</u> |
| Very Often | Often    | Sometimes | Rarely   | Never    |
- \*22) Does your son ignore your daughter's requests for attention?
- |            |          |           |          |          |
|------------|----------|-----------|----------|----------|
| <u>1</u>   | <u>3</u> | <u>9</u>  | <u>5</u> | <u>6</u> |
| Very Often | Often    | Sometimes | Rarely   | Never    |
- \*23) Does your daughter initiate contact with your son and get openly rejected (i.e., does he tell her to get lost, leave him alone, etc.)?
- |            |          |           |          |          |
|------------|----------|-----------|----------|----------|
| <u>2</u>   | <u>4</u> | <u>12</u> | <u>3</u> | <u>3</u> |
| Very Often | Often    | Sometimes | Rarely   | Never    |
- 24) Does your son exclude your daughter from activities that she could reasonably participate in?
- |            |          |           |          |          |
|------------|----------|-----------|----------|----------|
| <u>2</u>   | <u>3</u> | <u>10</u> | <u>6</u> | <u>3</u> |
| Very Often | Often    | Sometimes | Rarely   | Never    |
- 25) Does your daughter exclude your son from activities he could reasonably participate in?
- |            |          |           |          |          |
|------------|----------|-----------|----------|----------|
| <u>0</u>   | <u>3</u> | <u>10</u> | <u>9</u> | <u>2</u> |
| Very Often | Often    | Sometimes | Rarely   | Never    |
- 26) Does your son intrude upon, disrupt, or disregard your daughter's activities (i.e., change T.V. channels while she is watching, change records or radio stations she is listening to, take away her toys, etc.)?
- |            |          |           |          |          |
|------------|----------|-----------|----------|----------|
| <u>3</u>   | <u>6</u> | <u>9</u>  | <u>3</u> | <u>3</u> |
| Very Often | Often    | Sometimes | Rarely   | Never    |
- 27) Does your son enjoy including your daughter in his activities and invite her to join in when with his peers?
- |            |          |           |          |          |
|------------|----------|-----------|----------|----------|
| <u>0</u>   | <u>1</u> | <u>7</u>  | <u>8</u> | <u>8</u> |
| Very Often | Often    | Sometimes | Rarely   | Never    |
- 28) Do any other behaviors come to mind that in your opinion strongly characterize how your son and daughter get along? If so, please comment briefly in the following space:

APPENDIX H  
QUESTIONNAIRE FOR SISTERS

## APPENDIX H

QUESTIONNAIRE FOR SISTERS

- 1) Does your brother like to spend time with you?

2	19	3
Always	Sometimes	Never
(1)	(2)	(3)

- 2) Does your brother tease you so you feel like crying?

4	17	3
Always	Sometimes	Never
(3)	(2)	(1)

- 3) When you approach your brother to talk or play with him, does he ignore you, tell you to leave him alone, tell you to get lost or make you leave his room?

4	16	4
Always	Sometimes	Never
(3)	(2)	(1)

- 4) Does your brother beat you up?

2	11	11
Always	Sometimes	Never
(3)	(2)	(1)

- 5) Does your brother include you in playing with his friends?

0	6	18
Always	Sometimes	Never
(1)	(2)	(3)

- 6) Does your brother yell loudly or scream at you?

2	20	2
Always	Sometimes	Never
(3)	(2)	(1)

- 7) Does your brother like to teach you to do things he's good at? (Such as sports activities, artwork, playing music?)

5	16	3
Always	Sometimes	Never
(1)	(2)	(3)

**APPENDIX I****Means and Standard Deviations of Girls' CBCL  
Behavior Problem Scale Scores**

## APPENDIX I

Means and Standard Deviations of Girls' CBCL Behavior Problem Scale Scores for High and Low Hostility-Agression Groups Individually and for the Total Sample

CBCL Scale	<u>Group 1 (Low)</u>		<u>Group 2 (High)</u>		<u>Total</u>	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Depressed	4.083	3.848	8.083	4.963	6.083	4.800
Social Withdrawal	1.333	1.371	4.500	3.477	2.917	3.049
Somatic Complaints	1.500	1.732	3.833	3.010	2.667	2.681
Schizoid Obsessive	0.333	0.651	1.167	1.946	0.750	1.482
Hyperactive	2.583	2.151	5.917	5.089	4.250	4.183
Sex Problems	0.833	0.718	2.083	1.165	1.458	1.141
Delinquent	0.500	1.168	0.917	1.165	0.708	1.160
Aggressive	3.417	2.906	13.667	8.510	8.542	8.129
Cruel	0.000	0.000	1.167	1.899	0.583	1.442
Other Problems	3.583	2.466	5.833	4.802	4.708	3.906

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