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THE EARLY DEVELOPMENT OF SIBLING RELATIONSHIPS  
IN CHILDBEARING FAMILIES

by

Susan Ormsbee Murphy

DISSERTATION

Submitted in partial satisfaction of the requirements for the degree of

DOCTOR OF NURSING SCIENCE

in the

GRADUATE DIVISION

of the

UNIVERSITY OF CALIFORNIA

San Francisco



Date

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Susan Ormsbee Murphy

## Preface

This work would not have been accomplished without the numerous and valuable contributions of many others. I would like to express my gratitude to those who provided the essential foundation and support for this research.

I am especially indebted to the families who participated in this study and made it possible for me to learn from their family experiences. They generously allowed time for my visits during a naturally busy period in their lives and were candid in sharing their personal experience with me. I also want to acknowledge the nurses, childbirth educators, and physicians who made possible my initial contacts with these families.

I am grateful to my peers in the doctoral program who have given new meaning to the word "friendship." They provided practical assistance, intellectual collaboration, and emotional support throughout these years of study and research.

I have also been the beneficiary of the expertise and support of several outstanding faculty. I want to convey my special appreciation to:

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My typist, Linda Kanegawa, transcribed many hours of interviews onto floppy disks, saving me months of tedious work. With great patience, Larry Wahl created numerous computer versions of my drawings.

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Finally, my heartfelt appreciation goes to my husband, Michael, and my children, Donnella, Timothy, and Megan. They experienced daily the consequences of having a wife and mother in school full-time. Perhaps only those family members who have experienced having a parent in graduate school can truly understand the sacrifices that families make for such accomplishments.

*J. O. M.*

THE EARLY DEVELOPMENT OF SIBLING RELATIONSHIPS  
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Susan O. Murphy

Abstract

This longitudinal qualitative study focused on the relationship between school age children and their newborn siblings in healthy childbearing families. Eight expectant families with school age children between five and eleven years of age participated in the study. Data were gathered monthly over a period of five months, from the ninth month of pregnancy through the fourth month postpartum. In order to understand the sibling relationship from the child's perspective as well as the parents,' multiple forms of data were gathered, including: videotaped observation of the child's first meeting with the infant; videotaped observations of everyday family interaction; interviews with parents; interviews with the school age children; and children's drawings.

Qualitative analysis (grounded theory methodology) was used to analyze both the visual and verbal data. The children's data revealed a pattern of reciprocity and intimacy not previously identified in sibling-infant relationships. The findings suggest that some children are especially sensitive in reading infant cues and responding contingently and empathically to the infant--a quality

identified as sibling mutuality. Eight distinct behavioral dimensions of sibling mutuality were identified and defined.

The findings also suggest that parental communication, specifically communication related to sibling-infant interaction, is an important condition for the development of sibling mutuality. The behavioral dimensions of mutuality appear to be fostered by parental "allowing" and "relaxed facilitating" of sibling-infant interaction. Behavioral dimensions of sibling mutuality appear to be diminished or hindered by parental cautioning and correcting of sibling behavior.

The primary contributions of this study are the explication of the behavioral dimensions of early sibling-infant mutuality and the initial identification of parental communication patterns that appear to foster or hinder mutual sibling relationships. The findings from this study add to an emerging body of knowledge which is attempting to address the relationship between family interaction and early sibling relationships. These theoretical foundations may help provide guidance for nurses and other health care professionals working with childbearing families.

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## CHAPTER 1

## INTRODUCTION

In their work with childbearing families, health care providers are often called upon to deal with parental concerns regarding sibling adjustment to a new baby--concerns ranging from expectations of sibling aggression to decisions about whether to include the older child at the birth of the infant.

Although health professionals are expected to be able to address these concerns, there has been insufficient knowledge available to guide them in meeting the needs of these families. Relatively little is known about patterns of family response and processes that occur when a new baby enters a family with an older child. In particular, there has been a lack of knowledge about the early development of sibling relationships in families and the factors which influence the development of that relationship. Nor have we understood what the baby's arrival means from the child's point of view, or how both, parents and children, contribute to the process of sibling relationship development. It is still not clear how birthing practices and hospital policies interface with patterns of family response to a new baby and with early sibling relationships. In order to address the concerns of childbearing families, health care providers need more knowledge about the relationships that emerge when another child is born to a family.

This short-term longitudinal family study focused on

the process of sibling relationship development when a new baby enters a family with a school age child. Recent sibling research (see Chapter 2) indicated that this process is not simply a dyadic experience, but one in which individual, environmental and family processes interacted reciprocally. Therefore, this study was designed to examine not only the interactions between the older sibling and the new baby, but also the interactions among all family members in their natural environment, specifically those interactions that impacted the sibling-infant relationship.

#### Purpose and Study Questions

The purpose of this research was to derive from the data substantive theory which could explain the development of early sibling relationships. Such a theoretical foundation could help provide a basis for future research as well as guidance for health care professionals working with childbearing families.

The overall research question was: How do sibling relationships develop during the early months and what are the factors that influence that process? Sensitizing questions included: How does sibling-infant interaction change over time? What meanings do new babies have for older siblings? What are the patterns of parental communication to the older sibling about the baby? How do parental values and communications impact the actual sibling relationship?

### Relevance to Nursing Practice

Over the last ten years, nurses in hospitals have become increasingly involved in providing direct services for siblings in childbearing families. This interest in siblings has evolved out of an ongoing consumer demand for family-centered childbirth. There are significant parallels between the recent focus on siblings and an earlier focus on father involvement in normal birth and cesarean delivery (Murphy, 1979), father-infant attachment (Bowen & Miller, 1980; Lamb, 1982a), and modes of father involvement in the childbearing experience (May, 1980, 1982a, 1982b). Similar questions are being asked in regard to siblings: Should siblings be present for labor and birth? What are the short-term and long-term effects when siblings are present at birth? Is there a sibling-infant attachment process? (See Marecki, Woolridge, Thompson, & Lechner-Hyman, 1985; Mullaly & Kervin, 1978; Murphy, 1981a, 1981b; Perez, 1981; Perez & Irvin, 1980-1981.)

A survey (Murphy, Summer, 1985) sent to all hospitals in central California with an obstetrical service, demonstrated the increased involvement of nurses with siblings in childbearing families. Of the 93 hospitals with obstetrical services, 74 (80 %) responded to the survey, including hospitals in both rural, conservative communities and major urban centers in an 18-county area. Of these 74 hospitals, over 75% had a policy which permitted siblings to

participate in the birth itself. Eighty-six percent permitted siblings to visit their mothers in her postpartum room, and 68% also allowed siblings to have direct physical contact with the baby (that is, rather than viewing the baby through a window, siblings could touch and hold the baby in these hospitals). Furthermore, of the 21 hospitals with intensive care nurseries, 12 allowed children to visit their ill or premature infant siblings. Nurses who practice in hospital obstetric services will recognize these figures as representing a very rapid shift in practice in less than 10 years (cf. Consolvo, 1987).

Not only are nurses having contact with siblings during birth, in nurseries, and on postpartum units, but they are creating and implementing new sibling-oriented services. Of the 74 responding hospitals, 38% reported that they offered additional services directly aimed at siblings, and others indicated that they plan to add such programs in the near future. These services include one or more of the following: preparation for participation in birth, big sister and big brother classes, parent consultation or discussions, or hospital tours for siblings-to-be (cf. Wilfred & Andrews, 1986).

In spite of the mushrooming growth of sibling-oriented services, the knowledge base for this nursing practice is undeveloped. A review of nursing articles on sibling classes shows that many nurses still base their classes on



outdated references and cultural cliches and are generally uninformed about current sibling research (Gates, 1980; Honig, 1986; Lamp, 1984). Considering the growth of big-brother-sister classes, it is an even greater puzzle when research findings indicate that attendance at sibling classes does not influence the outcome in sibling response (Marecki et al., 1985). If that is a valid finding, why provide such classes? Are these services addressing real needs of families or are such classes simply a form of hospital public relations?

Qualitative data from the hospital survey (Murphy, 1985) indicated a need for a broader understanding of sibling involvement throughout the childbearing period. Several nursing supervisors said that their hospitals had liberalized their policies several years ago. They did this in order to accommodate what appeared to be a mandate from consumers for sibling participation in birth. Yet, children rarely (or never) attended births at their hospitals. Hospital personnel wondered why parents so rarely availed themselves of this option. Two other studies corroborated that more families anticipated having their children at the birth than actually did so (Leonard, Irvin, Ballard, Ferris, & Clyman, 1979; Lumley, 1983).

By focusing primarily on sibling participation at birth, health care providers may overlook the larger context in which participation occurs: family patterns and values concerning sibling involvement, the meanings a new baby

might have for older children, and factors which influence the sibling relationship over time--beyond the birth experience. Lack of understanding of these factors has prevented the development of services which could effectively address the needs of families with older siblings. One of the long range goals of this research was to help fill this gap--to help build a knowledge base for nursing practice with childbearing families.

## CHAPTER 2

## REVIEW OF THE LITERATURE

This chapter presents an overview of research pertaining to siblings in childbearing families. Following a brief discussion of the evolution of sibling research, the chapter focuses on studies which address sibling responses to a new baby, early sibling interaction, and sibling involvement during the intrapartum period. The chapter concludes with a summary of the gaps in our knowledge of sibling relationship development and recommendations for further study.

Evolution of Sibling Research

Until the late 1970's, literature pertaining to siblings could be categorized in two ways. First, the sibling relationship was viewed with an almost exclusively negative perspective (Bank & Kahn, 1980; Neubauer, 1982). Bossard and Boll (1954), known for their work with large families, stated: "The role of siblings has been considered chiefly in the light of 'displacement' and 'rivalry.' It is rarely that one finds any but the negative aspects of sibling relationships, and warnings as to how to deal with them" (pp. 532-533). The popular Freudian psychological perspective stressed 'rivalry' "with little attention paid to the part siblings can play in role-performance learning, knowledge dissemination, satisfaction of emotional needs, and other aspects of socialization" (Irish, 1964, p. 286).

Second, sibling studies focused primarily on the effects of family structure variables: birth order, sex, and spacing of siblings (Sutton-Smith & Rosenberg, 1970). Ordinal position was studied in relationship to an almost unlimited list of variables from IQ and mental illness to marital outcome (Schvaneveldt & Ihinger, 1979). Most of these studies suffered from questionable methodologies and the results were often confusing and contradictory (Dunn, 1984).

The late 1970's brought a resurgence of interest in siblings, with less emphasis on family structure variables and greater focus on processes, interaction, and relationship patterns (Lamb, 1982b). Recent studies indicate that sibling relationships may be major contributors to human development. Siblings perform important functions for each other and develop strong loyalties (Bank & Kahn, 1975; 1982b). Sibling ties appear to be even stronger in large families and in families where parental influence is negative, absent, or less intense (Bossard & Boll, 1954, 1956; Bank & Kahn, 1982a).

In addition, there is a growing awareness of the contexts within which siblings interact. Sibling relationships are influenced by environmental factors such as household composition (nuclear or non-nuclear), socioeconomic systems (Whiting & Whiting, 1975), and cultural values (Weisner, 1982).

Furthermore, there is increasing evidence that young

children, even those under two years of age, are able to interact and to modify their behavior in ways that influence how others, siblings as well as parents, interact with them (Dunn & Kendrick, 1982b; Dunn & Munn, 1985; Eckerman, 1979; Fein, 1975; Hoffman, 1975; Lamb, 1977, Lamb, 1978b; Stewart, 1983a, 1983b). Attachment behaviors have also been identified between very young siblings (Dunn, 1983; Dunn & Kendrick, 1982c; Stewart, 1983a).

Sibling interaction is rich and varied, including both prosocial and aggressive behavior, similar in amount and variety to adult relationships. (Abramovitch, Cortner, & Lando, 1979). The variety of interactions, including teaching, imitating, protecting, as well as teasing and aggressive interactions, support the view that sibling relationships are not based primarily on rivalry.

#### Sibling Response to the New Baby

Studies which address sibling response to the arrival of a new baby vary widely in scope, rigor, and theoretical contribution. (Tables 1a, 1b, and 1c in Appendix A summarize the recent studies on sibling response.) The most insightful contributions come from the disciplines of child development and family sociology. Several more limited examples come from medicine (psychiatry) and nursing. The following discussion reviews what is known about sibling response following the arrival of a baby, based on this body of research.

### Limited and Short-term Studies on Sibling Response

The studies by Kayiatos, Adams, and Gilman (1984), Taylor and Kogan (1973), Legg, Sherick, and Wadland (1974), Marecki, Woolridge, Thompson, and Lechner-Hyman (1985), and Anderberg (1988) are short-term or methodologically limited studies. Their contributions to theory regarding sibling response are also limited. However, such limitations can also provide guidance in the design of future research and therefore are important to this discussion.

Kayiatos et al. interviewed mothers once by phone, 3-6 weeks postpartum, using a questionnaire which asked specifically about "behaviors reported to be manifestations of sibling rivalry." Ninety-three percent of the mothers reported at least one regressive behavior by their toddler in 3-6 weeks, and the average number of regressive behaviors per toddler was 2.14. The investigators did not use their questionnaire on a control group (mothers of toddlers without a new baby) to see how many regressive behaviors one might expect to see over 3-6 weeks among toddlers.

This study by Kayiatos et al. demonstrates two problems commonly encountered in sibling research. First, collecting data only once after a baby is born cannot adequately address the issue of developmental contribution to regressive or maturational behavior changes. Second, focusing only on regressive or negative behaviors fails to reveal the wide variation in sibling response that might be

occurring following the arrival of a new baby.

Legg et al. based their findings on maternal reports from single postpartum interviews. This study provides numerous examples of the persistent use of Freudian theory to explain toddler behavior after the birth of a baby. (For example, in reference to a 1 1/2 year old boy who was "jumping up and down with laughter" during his visit to his mother in the hospital, the investigators suggested that this was a "reversal of affect...in defense against angry or hurt feelings," p. 22.)

In spite of methodological and theoretical limitations, this study by Legg et al. has made an important contribution to the literature on sibling response to a new baby. The maternal reports indicated that children demonstrated mastery and accelerated growth as well as regressive behaviors--a finding corroborated by several other studies on sibling response (Dunn & Kendrick, 1982a; Nadelman & Begun, 1982). Furthermore, the investigators identified numerous contextual and individual variables which need to be examined in future studies of sibling responses to a new baby. Variables identified as potentially relevant included: early preparation, house moves, hospital visiting, father involvement, previous experiences of separation, and death of a previous infant.

Taylor and Kogan compared laboratory observations of mother-firstborn child interaction before and after the

arrival of the second child. They found decreased maternal and child warmth and increased emotional neutrality in the postpartum observations. The mothers yawned, were fatigued, and responded to their firstborn children with more effort. The researchers acknowledged that these behaviors could be related to workload, but did not investigate that hypothesis further. They also found that although six of the mother-firstborn dyads were less patterned to each other, two were significantly more patterned to each other. The investigators did not choose to make further comparisons to explain why dyads do or do not become more patterned. They simply stated that the unexpected results from two of the dyads reduced the statistical significance of the overall findings.

Marecki et al. attempted to study "attachment" behaviors in preschoolers. However, they were unable to make a substantive contribution to a theory of attachment between siblings and infants since their findings were based on 5 minutes of a first-time meeting, in an unfamiliar setting, under a video camera, using adult "bonding behaviors" to code children's interactions. In order to build a valid, broad, and useful knowledge base about sibling responses to the arrival of a new baby, future research will need to consider the developmental, dynamic, and contextual aspects of sibling relationships over time.

Anderberg studied the behaviors of 30 children during



their first visit to the hospital to see their newborn sibling. Although this research was based on a single observation in the hospital, her findings are of theoretical significance. She reported the frequencies of various categories of acquaintance behaviors (looking, touching, holding). These behaviors were not observed to occur in any specific sequence, although some of the actions were similar to the sequential attachment behaviors found by mother-infant researchers (Klaus & Kennell, 1976; Rubin, 1963).

Adult behaviors which appeared to facilitate sibling-infant acquaintance behaviors included: giving children permission to touch the infant and pointing out features of the newborn. Acquaintance was also facilitated by allowing the child to interact spontaneously with the infant. Adult behaviors which seemed to delay sibling-infant acquaintance included: taking photographs and forcing the child to touch the newborn. Anderberg acknowledged the numerous potentially confounding variables in the hospital setting and the lack of generalizability, but her findings are unique and add an important theoretical perspective to our understanding of initial sibling responses.

#### Longitudinal Research on Sibling Responses to a New Baby

The studies by Nadelman & Begun (1982), Gottlieb (1985; Gottlieb & Mendelson, 1986, 1987), Dunn & Kendrick (see

Table 1b in Appendix A), and Kreppner, Paulsen, and Scheutze (1982a, 1982b) represent research from child development and family sociology. All three studies examined interactional, contextual, and developmental factors, and used multiple methods for data collection and analysis, preceded by observer training and reliability studies. The study by Gottlieb was done by a nurse in collaboration with a child development researcher, and also was the first research in nursing to attempt to examine interactional variables as they affect sibling outcomes, using data gathered from children.

Research by Nadelman and Begun and Gottlieb. Nadelman and Begun conducted a well-designed, multi-measure study using pre- and post-birth data. Their study is of particular interest because it included data gathered from children (using doll play) as well as from mothers. Also, it is unique in its inclusion of a matched control group (firstborn children without a new baby). Their behavioral questionnaire contained a range of behaviors from "seems to enjoy new things or experiences" to "makes a fuss about going to bed at night," so the tool was not skewed to measure only negatively valued behaviors. In this respect, they, like Dunn and Kendrick, looked at both mastery and regression, neutral as well as theoretically significant behaviors. Only preliminary findings, based on the maternal report data and part of the controls, have been reported.

Several of Nadelman and Begun's findings intersect with other studies in interesting ways. For example, at 3-4 weeks postpartum, they found no correlation of sibling response with sex of the infant, but identified a few significant differences in sibling response related to sex of the firstborn. Boys were more likely to withdraw than girls, while girls increased proximity-maintenance behaviors and reduced behaviors associated with "apathy." Although the investigators did not discuss this, their results correspond to findings in studies of non-human primates, in which female siblings stay closer to the mother-infant dyad and demonstrate significant interest in the infant (Suomi, 1982). (Suomi suggests that this may be biologically adaptive, since female primates that do not demonstrate this behavior as siblings are less capable in their own mothering behavior later [c.f. Frodi & Lamb, 1978].)

Nadelman and Begun also reported much involvement of siblings in infant care: dressing (71%), hugging and holding (68%), entertaining (53%), and bathing the baby (43%). Because theirs was not an interaction-focused study, they were not able to indicate how family interaction patterns may have contributed to the siblings' active involvement in care of the baby. However, the answer to that question may prove to be most salient for professionals who work with childbearing families, and is of particular interest to this investigator.

Mothers in Nadelman and Begun's study reported that

younger children had more toileting accidents and needed more help after the birth, while older preschoolers were more likely to demonstrate increased independence. These reports make sense in terms of developmental tasks and the rapidly changing developmental capabilities of children between two and five years of age. The findings, in fact, suggest that "regression" and/or "independence" may be just as likely to occur whether or not a new baby enters the family. Indeed, when Nadelman and Begun compared preliminary data from the control group with data from children with new infant siblings, the only difference between the experimental and control groups at the postpartum visit was that the experimental group talked about babies more frequently (not surprising). However, differences in change scores between the two groups showed that the children with new babies needed less help doing things and objected less to being left alone for a few minutes, but fussed more about going to bed at night, while the control group made changes in the opposite directions on those items. The final results of Nadelman and Begun's study should be of great interest, particularly the complete data from the control group and findings from the child play observations.

Gottlieb (1985; Gottlieb & Mendelson, 1986, 1987) conducted a short term longitudinal study of 50 families with firstborn daughters, from late pregnancy through 6

weeks postpartum. Her research examined the relationship between parental support and preschool sibling response to the infant, using both observational and instrumental measures. In her findings, prenatal distress of the firstborn was the best predictor of postnatal distress. However, firstborns whose parents provided high postnatal support showed less postnatal distress than firstborns whose parents did not. Furthermore, postnatal maternal support interacted with individual factors (temperament variables) to influence sibling involvement with the baby. That is, family interactional variables, as well as individual variables, contributed to differences in sibling response.

Studies by Dunn and others. Dunn and Kendrick in England conducted an extensive multivariate study of siblings in families with a new baby. These authors are the most widely published among researchers addressing sibling relationships. (Table 1b in Appendix A summarizes their research.) It is difficult to do justice to the magnitude and importance of their work in a summary (note the 13 references in which the authors report their work), but their findings are an essential part of the knowledge base for any future research on siblings and newborns in families.

Forty families from a working-class neighborhood were recruited during their second pregnancy to participate in this longitudinal, prospective study. Firstborn children

were 18-43 months old at the time of the second child's birth. Data were collected prenatally and following the birth until the second-born child was 14 months. Dunn and Munn (1985) and Stillwell (1985) continued to follow some of the subjects from the original study and have reported detailed results for up to a four year period, when the older siblings were six years old.

Dunn and Kendrick's protocol indicated that fathers may have been present during some interviews and observations, but contributions of fathers' presence were not included in the analyses or discussion. Their reports focused exclusively on dyadic and triadic interactions of mother, infant, and sibling. Their work is especially significant in that they examined both family interactions and family structure variables.

At each time sampling, two home visits were made for data collection, using multiple measures (maternal interview, questionnaires, and observations with tape recordings). Statistical analyses, using multiple regression, addressed interacting effects of variables and tested numerous hypotheses from the data. Overlapping contributions of age, gender, and temperament, as well as interactions of mother/infant::sibling, mother::sibling, mother::infant, infant::sibling, and infant::mother/sibling were examined for consistency and change over time.

Sibling responses at 2-3 weeks postpartum varied with

sibling age, temperament, and gender, mother's state, mother-sibling interaction, and whether the mother was breast or bottle-feeding. There were changes in mother-sibling interaction, specifically: increased maternal prohibiting, less maternal attention and play, and reduced maternal initiating. When the mother was busy with the baby, there were more confrontations between mother and sibling, but there were also more positive interactions between mother and sibling. Furthermore, decreases in maternal attention to sibling occurred when the mother was NOT busy with the baby. Contrary to the psychoanalytic viewpoint (as represented by Legg et al., 1974), there were fewer mother-sibling confrontations if the mother was breast-feeding than if she was bottle-feeding. Also, more than 50% of the mothers reported "more grown-up behavior."

Dunn and Kendrick's findings over the two year period indicated that the sibling relationship has high salience for both the infant and older child. "Ignoring" behaviors were rarely seen and most often there were immediate responses to the other's actions. Also, there was an absence of simple patterns over time, either primarily positive or primarily negative. Instead, most siblings interacted in both friendly and aggressive ways. Interactions tended to be more positive during the first months. At 8 months postpartum, positive sibling interactions ranged from 8-95% (median = 56%) and negative interactions ranged from 0%-80% (median = 27%). At 14

months, the positive/negative median figures were nearly equal at 40% and 39% respectively. This corresponds to findings in other studies which report an increase in sibling conflict when an infant becomes mobile (Kreppner, Paulsen, & Scheutze, 1982a; Legg et al.).

By far, Dunn and Kendrick's most insightful observations had to do with interaction. They described how even young children modified their speech patterns appropriately to engage the attention of the infant (1982b); furthermore, the younger sibling demonstrated increasing social sophistication and responsiveness to the older sibling, showing concern when the mother was angry at the older child, and responding with apparent differential awareness to misbehavior--their own versus their sibling's (Dunn & Munn, 1985).

Dunn and Kendrick's most compelling finding seems to have been a serendipitous one, concerning the mother's style of communication to the sibling about the baby. "The way in which the mother talked to the first child about the baby as a person, with feelings and needs, for whom they both could take responsibility" (1982c, p. 54) correlated with more affectionate sibling interest during the first 2-3 weeks and more friendly sibling interaction at 14 months postpartum. These mothers talked about the baby's cues and intentions and encouraged the firstborn to participate in looking after the baby (c.f. Scheutze, 1982). These same siblings later



demonstrated greater attunement to the baby's needs and more positive responses to the baby (Dunn & Kendrick, 1982a; 1982c). This maternal communication style seems to be linked to a maternal capacity to "tune-in" to a child's perspective (1982c, p.55). The patterns of communication and strategies by which mothers and/or fathers facilitate or prohibit sibling interaction with the baby is an exciting area for further research. This piece may be of greatest importance for nursing because it is amenable to intervention, particularly at the points when nursing practice interfaces with pregnant families.

Family-focused research by Kreppner and others.

Kreppner, Paulsen, and Scheutze (1982a; 1982b) of West Germany, conducted a longitudinal, qualitative study of 16 families who were expecting a second child. Extensive biographical interviews were done prenatally. Following the birth, home visits were made every 14 days for three months and once a month for the remainder of a two year period. The visits included informal discussions and 30-60 minutes of videotaped family interaction during everyday activities. Two over-arching questions guided the investigation:

1. How is the second child integrated into the family?
2. How is the sibling relationship established?

(Scheutze, 1982)

In order to understand the interrelationships of family

structure, family dynamics, and individual development, Kreppner et al. utilized an hermeneutic style of analysis, making comparisons both within and between families over time. Comparisons between families permitted the research to go beyond individual case studies to identify common patterns of change. (Their analysis shares several characteristics with qualitative analysis directed toward the development of grounded theory. First, as the investigators become immersed in the data, hypotheses emerge; these can be pursued through additional data collection, and also can be checked out with the family and with the other members of the research team through shared data analysis. Furthermore, emerging patterns, processes, and theoretical models are enriched in depth and detail by ongoing constant comparisons within and across families.)

In the theoretical model which emerged, the process of family structural change was visualized as moving from a triadic structure to a tetradic family structure following the birth of the second child. This process occurred in three phases in slightly delayed synchrony with developmental changes in the infant. The investigators identified two critical transition points: at 8-9 months when the infant became mobile and also went through the "attachment phase," and at 16-18 months when the younger child began to use words for expressing his/her own intentions.

Within the three phases of family change, the researchers identified family interaction patterns and changes in social expectations which influenced the development of the sibling relationship. Because this research forms a significant part of the knowledge base for family-focused study of siblings, this section presents a brief summary of the three phases of their theoretical model and then discusses a specific subsection of this research as elaborated by Scheutze (1982).

Phase One centers on the initial integration of the infant into the family during the first eight months after birth. For the parents, this phase involves reallocation of time, responsibilities, and affectional resources. Their primary task is to establish contact between the children and to introduce the older child to his new role as older sibling. At first, "the older child most often is kept in his or her former position by the parents" (Kreppner et al., 1982a, p. 382). An older child might demonstrate adjustment by differentiating him/herself from the baby ("I am bigger") and also by identifying with the baby ("I am also still little"). This is a period of primarily positive sibling-infant interaction (Scheutze), but the end of this phase is characterized by increasing parental limit-setting for the older child (Kreppner, et al.).

Phase Two corresponds to the crawling and walking phase of the second child (9-16 months) and the child's ability to interact and communicate actively with others. There is an

increase in sibling conflict in response to the infant's active interference with the sibling's world. This phase begins with parental limit-setting for the older child, and moves toward increased limit-setting for the younger. Out of this phase, "the establishment of an autonomous sibling relationship within the family seems to be extremely important" for successful integration (p. 385).

Phase Three occurs between 17 and 24 months, coinciding with significant growth in the younger child's vocabulary. The second child is able to interact in new ways with the older sibling. Also, parents increasingly leave the children to work out their own conflicts with less parental mediation. What characterizes this phase is the differentiation within the family of two major subsystems: "parents" and "children." The older and younger siblings begin to see themselves as a unit, forming new balances within the family.

In an independent discussion of her research done with Kreppner and Paulsen, Scheutze (1982) described a style of communication seen in both mothers and fathers, similar to that identified by Dunn and Kendrick, but interpreted from a somewhat different theoretical viewpoint. Scheutze described interactions between parents and the older sibling in which the mother and/or father pointed out infant intentions--some of which were clearly beyond the actual developmental ability of the infant. Through this strategy,

the parents appeared to establish a connection between the older sibling and the infant, to assist the child in understanding what the infant was feeling or thinking, and to teach the child how to interact with a baby. Scheutze interpreted these parental behaviors as acting "as if a relationship already existed" between the children. She called this the "mechanism of the fictitious sibling relationship," stating that the successful transition from a triadic to tetradic family structure is achieved "when the fictitious sibling relationship becomes a reality" (p. 10).

Scheutze's interpretation appears to assume a theoretical position which views the infant initially as a passive participant in interaction, lacking identifiable feelings or an ability to put forth actual cues and responses. Recent research on infant capabilities, however, indicates that newborn infants do demonstrate an ability to give cues about their internal state and to show preferences for outside stimuli (see references cited earlier in this paper). With this understanding, the parental pretense could be explained with a slightly different interpretation: Parents talk to the sibling "as if" the baby has an equivalent level of intentional mental and linguistic capabilities to that of the sibling. The pretense may also have to do with the implied importance of the sibling's assistance. To some extent, these parents were operating "as if" they needed the older child's help in making

decisions about the infant, "as if" his/her collaboration were essential ("Shall we give him something to eat first?" Scheutze, p. 13).

In another discussion of their research, Kreppner et al. (1982b) provided examples of family communication sequences which seemed to influence sibling interaction. In some families, the parents communicated with the older child in a way that fostered recognition of the infant as a full member of the family, as a person with needs and feelings separate from others. Through these communications, the parents encouraged the child to gear his or her own actions toward the infant in ways which were appropriate to the infant's needs. In other families, parental communication tended to interrupt sibling interaction with rules and restrictions. Their research suggests that these differences in family interaction patterns are related to the amount of sibling conflict in the second year.

Kreppner, Paulsen, and Scheutze approached their study from a large conceptual perspective; rather than measuring discrete variables, they looked for ongoing processes and patterns. This methodology represents a fundamental cognitive shift from itemized, pre-coded, quantitative thinking to a wholistic, integrative, qualitative perspective. Thus, it is even more remarkable that their findings intersect so naturally with Dunn and Kendrick's work. This intersection can be seen most strikingly in the

phenomenon discovered and described by each research team, having to do with parental communication to the older sibling about the new baby. The independent discovery of distinctive, similar parental communication dynamics by both research teams is exciting, and suggests an important area for further cross-cultural research on how parental communication may facilitate or constrain the development of new sibling relationships.

#### Intrapartum Sibling Research

In previous sibling research, the intrapartum period has been largely ignored by disciplines outside of medicine and nursing (with the exception of Field and Reite, 1984). Those studies which have considered intrapartum variables have addressed two specific areas: hospital visiting and sibling participation in labor and birth. Although these studies are narrowly focused they are of specific importance to this research proposal for several reasons.

First, these areas have obvious and immediate relevance to nursing practice. Nurses provide services to siblings in childbearing families primarily during the intrapartum period. Also, nurses have addressed these two areas of sibling research more than any other, indicating that the research questions come directly from practice. The significance of sibling intrapartum research may be even greater when the findings are understood as part of the larger process of family and sibling response to the baby's

arrival. Nursing research on siblings has not yet taken this larger perspective; however, examination of these narrower studies may suggest directions for larger questions.

### Sibling Visiting Studies

Studies which have examined intrapartum sibling visiting in the hospital are summarized in Table 2, Appendix A. Investigators have studied sibling visiting from one or more of the following perspectives:

1. sibling responses to separation from the mother;
  2. sibling and/or family responses to visits in the ICN;
- and
3. the impact of sibling visiting on infection rates among infants.

Sibling visiting versus separation. Trause et al. (1981) were pioneers in research on sibling hospital visiting. They attempted to identify the effects of child separation from mother versus hospital visiting on sibling response to mother and infant. However, methodological and theoretical problems threatened both validity and reliability, raising questions about the findings and interpretations.

Field and Reite (1984) linked their study of intrapartum separation anxiety to research on non-human primates. They observed and monitored children in the home



setting during sleep and play activities. They used physiological measurements along with observational data to compare behavior of children across three time periods: prenatally, intrapartum, and postnatally. Despite hospital visiting and father involvement, toddlers and preschool children demonstrated behavioral and physiological responses consistent with separation depression found in non-human primates. The theoretical linkages and cross-comparisons with other studies make this an especially interesting piece of research, encouraging investigators to look at sibling visiting from a larger perspective.

Sibling visiting in the ICN. Two other studies on sibling visiting (Ballard, Maloney, Shank, & Hollister, 1984; Schwab, Tolbert, Bagnato, & Maisels, 1983) revealed valuable data on sibling visiting in the intensive care nursery (ICN). Both studies used multiple sources for data collection to examine short-term responses of siblings and families to the experience of visiting their infants in the ICN, and to compare findings with a randomly assigned control group. Small sample sizes and wide age ranges precluded statistical analyses, but the qualitative findings--including the age-related descriptions of children's behavior in the ICN--are especially relevant for hospital personnel who are formulating visiting policies for siblings.

Ballard et al. reported that sibling home behavior did

not change in either the visiting (n = 31) or non-visiting (n = 26) groups. In the visiting families, parental well-being appeared to improve. Also, their children demonstrated no detectable upset related to visiting the ICN, and several children seemed to gain significant benefit by visiting their ill infant sibling.

Schwab et al. reported that all 5 children who visited in the ICN were positive about the baby coming home and described the hospital in positive ways. In the non-visiting group, two of the six children were ambivalent about the baby coming home, and four of the six described the hospital in negative or fearful ways. These results raise additional questions about the impact of sibling visiting in an ICN on the emerging sibling relationship.

Sibling visiting and infection rates. Kowba and Schwirian (1985), Solheim and Spellacy (1988), Umphenour (1980), and Wranesh (1982) addressed bacterial colonization of infants related to sibling visiting exclusively. All published studies on infection rates and sibling visiting have reported the same findings: hospital visiting by siblings did not increase bacterial colonization of infants. Since nosocomial infections are of concern in inpatient settings, such studies are important for guiding hospital policies. As these studies support changes in hospital policies, future research should focus on the impact of these policies on sibling and family responses following the

arrival of a new baby.

### Sibling Participation in Birth

Table 3 in Appendix A summarizes the research which addresses sibling response to birth. This collection of research is particularly diverse. The designs, research questions, and methodological and theoretical deficiencies make them non-comparable. The results seem to correlate best with the a priori opinions of the researchers: those who favored sibling participation found in their studies, justification (Anderson, 1981b; DelGiudice, 1986; Mehl, Brendsel, & Peterson, 1977). Those who saw birth as an "adult" event interpreted positive responses of children in a neutral way (Leonard, Irvin, Ballard, Ferris, & Clyman, 1979; Irvin, Leonard, Clyman, & Ballard, 1981; Isberg & Greenberg, 1987).

Two studies conducted by nurses provide the most stimulating data for future research on siblings' experiences with birth. Gomez (1983) maintained a family focus in her study of sibling responses to birth attendance. She interviewed parents before the birth to discern their plans and reasons for including children at the birth and observed a few children who attended births. Parents most often reported that they included the older siblings in order to promote family closeness, to include the children as part of the family, and to promote sibling closeness. Although sampling and analytic strategies were limited in

this study, Gomez's findings raise questions as to how parental values might be related to parental strategies and long-term sibling relationship outcomes.

Daniels (1983) did a follow-up study of 35 children who attended sibling births. She interviewed all of the mothers, support persons, and midwives, and some of the fathers. She also tape-recorded interviews with children at home while looking at family birth pictures, playing with a pregnant doll, and/or drawing pictures. These rich qualitative data gathered from multiple sources could provide a splendid opportunity for further analysis. However, the only analysis reported from this extensive database was a "14 point scale" of an "ideal" experience against which the investigator scored the experiences of the children.

Quotations from Daniel's interviews with children suggest several ideas which deserve further study. All of the children (ages 5-15) said that they thought they were old enough to be at the birth, but thought that attending birth would be too much for a child any younger than they were. Daniels hypothesized that this may reveal how close to overwhelmed these children felt at the experience. This is an interesting hypothesis, not raised by anyone else who has looked at sibling responses to birth, and it deserves follow-up in future research.

Other quotations from Daniel's data which are

especially relevant to this review include statements of young children who, in their interviews, endowed the infant with a need to relate to them. A 5 year old girl stated, "My baby was thinking, 'Look at my big sister'." A 7 year old said, "He opened one eye and he looked to see where I was at." The fascinating aspect of these comments is their similarity to the "as if" communication patterns described by Scheutze and the maternal communications to the older child described by Dunn and Kendrick. If these communication patterns are examples of the same phenomenon, they seem to suggest that older siblings may initiate such communication patterns as well as hear them from parents. If such communication, endowing infants with intentions, is part of an ongoing process of developing intimacy and affection for the infant, it may help explain why children in Dunn and Kendrick's study demonstrated more affectionate behavior toward the infant later.

#### Gaps in Sibling Research in Families with a New Baby

From this review of sibling research, it is evident that relatively few studies have addressed sibling relationships in families with a new baby, and of those which have attempted to do so, many suffer from serious theoretical and methodological limitations, leading to inconclusive findings. With the exception of Dunn and Kendrick, Gottlieb, and Kreppner et al., studies have relied largely on maternal report, used tools which are limited or

biased, and/or examined "sibling behavior" reactions apart from their family context.

#### An Interactive, Family-oriented Approach

Attempting to study siblings within family processes and patterns presents methodological challenges. In order to understand the development of sibling relationships, maternal report cannot be relied on exclusively--unless, of course, the sole interest is maternal perception of the process and not the process itself. Nor can dyadic or triadic interaction be the sole focus since it is apparent that whole family interaction patterns influence sibling relationships.

No doubt the difficulty in framing complex family-focused research has been a major contributor to the limitations in sibling research thus far. Many of the studies have focused on single, easily quantifiable, and limited variables--age, sex, visiting or non-visiting, presence or absence at birth, and presence or absence of certain behaviors (e.g., lapses in toilet training or use of pacifiers). Such studies have failed to address the complexities of family interaction, the changes that occur when a baby enters a family with an older child, and the processes by which sibling relationships evolve.

In addressing the complexity of family research, Minuchin (1985) states that we need to "document observable processes of flux and stabilization, as individuals enter

new systems together and stable patterns are formed from the circular explorations of the participants" (p. 299). The multivariate research by Dunn and Kendrick, Gottlieb, and Nadelman and Begun, and the holistic, hermeneutic work of Kreppner et al., are distinguished examples of studies which successfully address interactive family phenomena and sibling relationships.

#### Prepartum, Intrapartum, Postpartum: Longitudinal Designs

Family and sibling responses to a new baby are phenomena that occur over time; yet, most sibling studies fail to conceptualize the ongoing, continuous nature of these responses to a new baby during the prenatal, intrapartum, and postnatal periods. A few investigators of sibling response have sought retrospective data about "when you told your child," but for the most part, events during pregnancy have been ignored. Nadelman and Begun suggest that the impact on the older child may be even more profound during the pregnancy than after the baby has arrived. One could make a case for viewing the sibling relationship as beginning during the mother's pregnancy--as soon as the child is told of the anticipated arrival of the baby. Some studies in nursing are developing the construct of maternal-fetal and paternal-fetal attachment, and this may prove to be a relevant concept for siblings as well. Sibling-fetal attachment and other prenatal considerations are completely missing from current sibling research.

Many sibling studies address the pre- and postnatal periods without considering intrapartum experiences; others look at activities of the intrapartum period as "treatment" effects and compare differences in sibling behavior before and after "the birth." Neither approach addresses the intrapartum period as part of an ongoing process of sibling relationship development. Furthermore, comparing data from a single observation or questionnaire before birth with similar data gathered intrapartum and once postpartum, treats "sibling reaction" as a static variable that needs to be observed only once before and after the birth. In this way, pre- and post-birth designs ignore the evolving, developmental aspects of sibling relationships and family adaptation. Describing and explaining these processes as they occur over time will require longitudinal research designs.

#### Cultural and Historical Context

The variety of cultures represented in studies of siblings in childbearing families is quite limited. The two exemplary longitudinal studies have been carried out in the United Kingdom and West Germany and a few short ones have been done in North America. Cross-cultural research is totally lacking and there is a need for replication and comparisons of research from different countries to fill this gap. The families studied by Dunn and Kendrick (U.K.) were drawn from a community where mothers were home all day



with their children, while fathers maintained a more distant provider role. One cannot assume that studies in the United States would find similar results in families where many mothers work and young siblings are sent to childcare settings.

Other more subtle historical effects may be influencing outcomes in sibling research. For example, Dunn and Kendrick found significant differences between same-sex and different-sex sibling dyads, and identified significant gender differences in sibling response. However, other studies (Nadelman and Begun, 1982) have found minimal gender differences or have seen gender differences disappear over time (Abramovitch, Pepler, & Corter, 1982). Is it possible that lack of gender significance in North American studies reflects a more androgynous child-rearing philosophy? These kinds of cultural and historical effects have yet to be addressed in studies of families with siblings.

None of the long-term studies on sibling relationships have attempted to address the impact of the family-centered childbirth movement (or its lack of influence) on siblings. Clues to this missing piece might be discovered through closer examination of parents' values about children participating in pregnancy and birth, combined with more valid research on sibling experiences during the intrapartum and postpartum periods.

Children's Attributes and Data

Previous studies on sibling response to the arrival of a baby have looked only at toddlers and preschoolers; they also have confined their investigations to firstborn siblings and secondborn infants. Consequently, there has been a gap in our knowledge about the development of sibling relationships for school-age siblings and/or families with more than two children. Research on school age siblings with infants would provide valuable comparative data, and the verbal abilities of children over 4 years old could help to articulate the experience from the child's perspective. Also, families with more than two children might reveal some critical comparative data. For example, this investigator's pilot data from hospital observations of siblings and infants provided examples of older siblings actively facilitating contact between their younger siblings and the new infant, demonstrating communication styles similar to those of parents described by Dunn and Kendrick and Scheutze.

Future sibling studies need to include data from children--both verbal and pre-verbal, using observations, interviews, doll play, drawings, and/or photographs, rather than relying solely on parental report. The studies which have relied exclusively on one data source (usually maternal report or behavior checklist instruments) have reaped limited results. Those which have used multiple sources of data, including data from children themselves, have made profound contributions to our knowledge of the development

of sibling relationships in childbearing families.

#### Disciplinary Considerations

Limitations in sibling research have reflected disciplinary traditions. In sibling studies, both family sociology and child development have tended to ignore the intrapartum period which is of considerable interest to nursing. Child development has focused on strategies for measuring individual developmental variables and dyadic interaction, often overlooking family context and evolving family processes. Nursing and medicine have tended to overlook the longitudinal, developmental aspects of sibling relationships. In order to maximize the theoretical and methodological contributions of several disciplines to sibling research, an interdisciplinary research program may be necessary. When that is not possible, nurse researchers must be knowledgeable about research from other fields in order to build on previous work and to design studies which will make an interdisciplinary contribution while providing a sound foundation for nursing practice (see Murphy, 1986).

#### Considerations in Building this Research on Previous Work

Numerous studies over many years will be needed to fill the gaps mentioned here. This research was designed to build on the sibling research discussed above, and also to break some new ground in this substantive area. While previous studies have looked at toddler and preschool siblings, this research studied school age siblings and

infants. This study also went beyond previous research by gathering data from children themselves, in order to understand what the baby's arrival might mean from the child's point of view. Finally, this research studied sibling and family interaction over time. Families were followed for a period of 5 months, from the ninth month of pregnancy through the fourth month postpartum. Parental communication to the older child concerning the baby was of specific interest: to identify whether parental communication styles similar to those in the European studies would be found, and to discern how communication patterns might influence the early months of the sibling relationship.

## CHAPTER 3

## METHODOLOGY AND THEORETICAL PERSPECTIVE

This study used several field research strategies for gathering data and utilized qualitative analysis to develop substantive theory from the data. This chapter discusses the background and description of the particular style of qualitative analysis used and the sensitizing theoretical perspective underlying this research. The last section of this chapter specifically describes the sample, settings, and research methods used.

Grounded Theory MethodologyGTM: Background

Grounded theory methodology (GTM) was developed by Strauss and Glaser in the 1960's during their work with terminally ill patients, and culminated in several works explicating the method and disseminating the emerging theory re: dying patients and "awareness contexts" (Glaser & Strauss, 1965, 1967, 1968; Strauss & Glaser, 1970). Further explication of the method has been done by Glaser (1978) and Strauss (1987). Although it has been most widely applied in research having to do with the sociology of health and illness, it has been used by researchers in anthropology, education, nursing, public health, and social work, as well as in sociology.

Grounded theory methodology has been clearly described by several nurse researchers (Corbin, 1986a, 1986b;

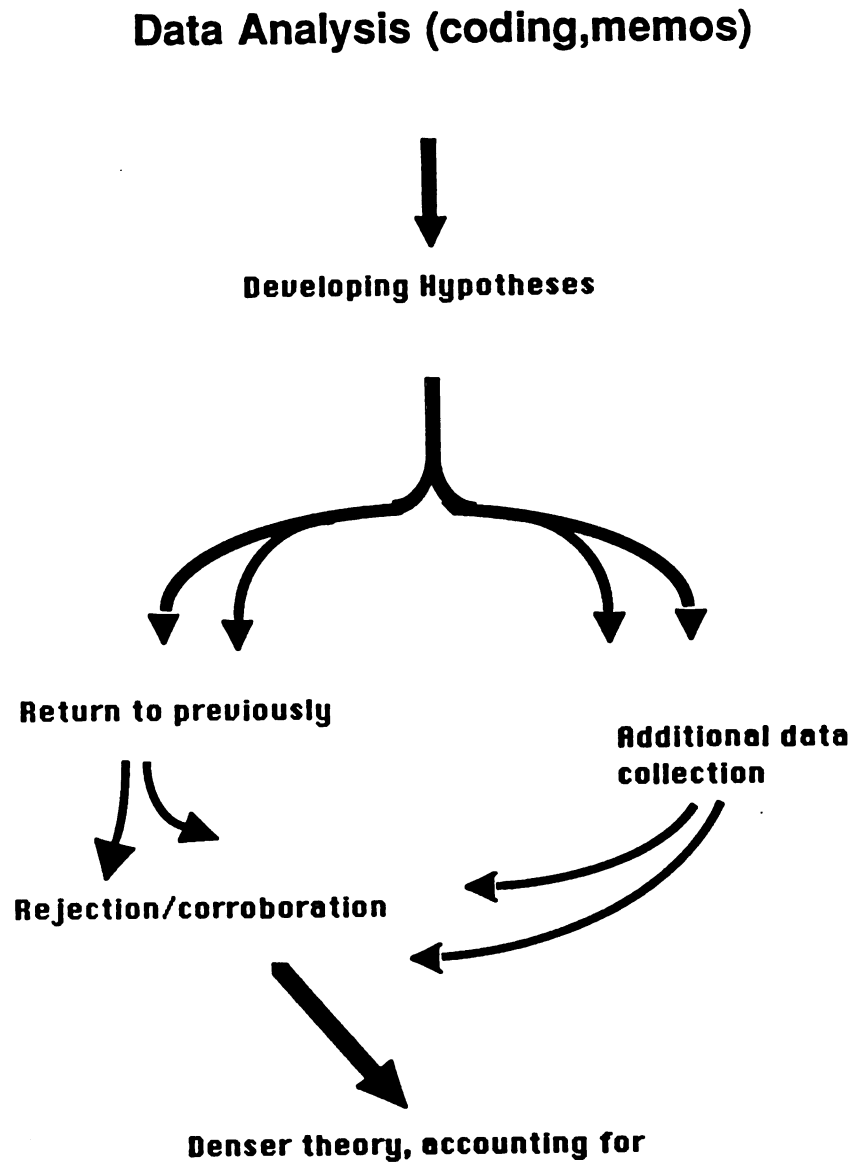
Fagerhaugh, 1986; Stern, 1980; Swanson, 1986) and has been utilized effectively for a variety of nursing research questions (Atwood, 1977; Benoliel, 1970; Fagerhaugh & Strauss, 1977; Kueffner, 1975; May, 1980, 1982a, 1982b; Olshansky, 1985; Stern, 1978, 1982; Wilson, 1977, 1983). The use of grounded theory methodology has resulted in valuable contributions to knowledge relevant to nursing practice. However, grounded theory methodology has enjoyed only limited use by researchers studying families. (Phyllis Stern's original work on the affiliative process in stepfathering is one of the notable exceptions [Stern, 1982].) Nevertheless, grounded theory methodology is well-suited to group data and ideally suited to questions where differing family meanings and interactions might be advantageously addressed with a more complex conceptual approach.

Grounded theory methodology is a style of systematic qualitative analysis designed to derive substantive and formal theory from data. It differs from other forms of qualitative analysis not only in the strategies used to reduce the data but also in the goal of analysis. For example, the goal of some qualitative work is to faithfully describe the area of interest. In phenomenological research, the goal is to uncover the experience of the person, using exemplars from that experience.

Osborne (1977) uses the following terminology in an attempt to differentiate the goals of various qualitative research approaches. He points out that some qualitative work has as its goal, understanding the experience of the individual. He calls this the "emic" view. He differentiates this from the "etic" view in which the goal is to explain the person's experience. Although grounded theory analysis may result in the description of a process and may also lead to a better understanding of the meanings an experience has for an individual, the goal of analysis is the development of conceptually dense theory which explains complex, multiple relationships in a research phenomenon.

#### GTM: Description

In grounded studies, the data collection plan is determined to some extent ahead of time and partially determined by the ongoing process of analysis. As data are gathered, transcribed, and reviewed, memos are written concerning insights, impressions, summaries of codes, and methodological clarifications (see Figure 1). Soon after data collection begins, hypotheses are proposed based on relationships seen in the data, and the developing theory guides further data collection through theoretical sampling (Corbin, 1986a; Glaser, 1978; Strauss, 1987). Comparisons are made among previously acquired data and new evidence is obtained in order to answer emerging questions. Both confirming and disconfirming data are sought, so both



**Figure 1**

**Theoretical Sampling**  
(Murphy, 1987, November)



generation and verification of hypotheses are integral to ongoing theory development. Deductive as well as inductive reasoning is essential to this process. Ideas and hypotheses emerge and others are dropped as they become clearly inappropriate based on efforts to verify or refute them with the data. This process of theoretical sampling maintains an ongoing responsiveness to the data and to the developing theory.

Data are analyzed microscopically, as in (but not limited to) line-by-line analysis. The microscopic analysis brings depth and density to the theory; more superficial coding would tend to reduce the data simply to major themes. Analytic questions based on a coding paradigm assist the researcher in identifying theoretical concepts from the data. The researcher works back and forth between the data and the theoretical level identifying conditions, interactions, strategies, and consequences inherent in the area of study (see Figure 2).

Operational diagrams, drawn as one goes along, clarify relationships between concepts and also reveal gaps in the data (see Figure 3). Integrative diagrams, organized around a primary concept, integrate work done over time. The research concludes with a presentation of the evolved theory and its related parts.

Although Glaser (1978) and Strauss (1987) state that grounded theory analysis can be used with any form of data

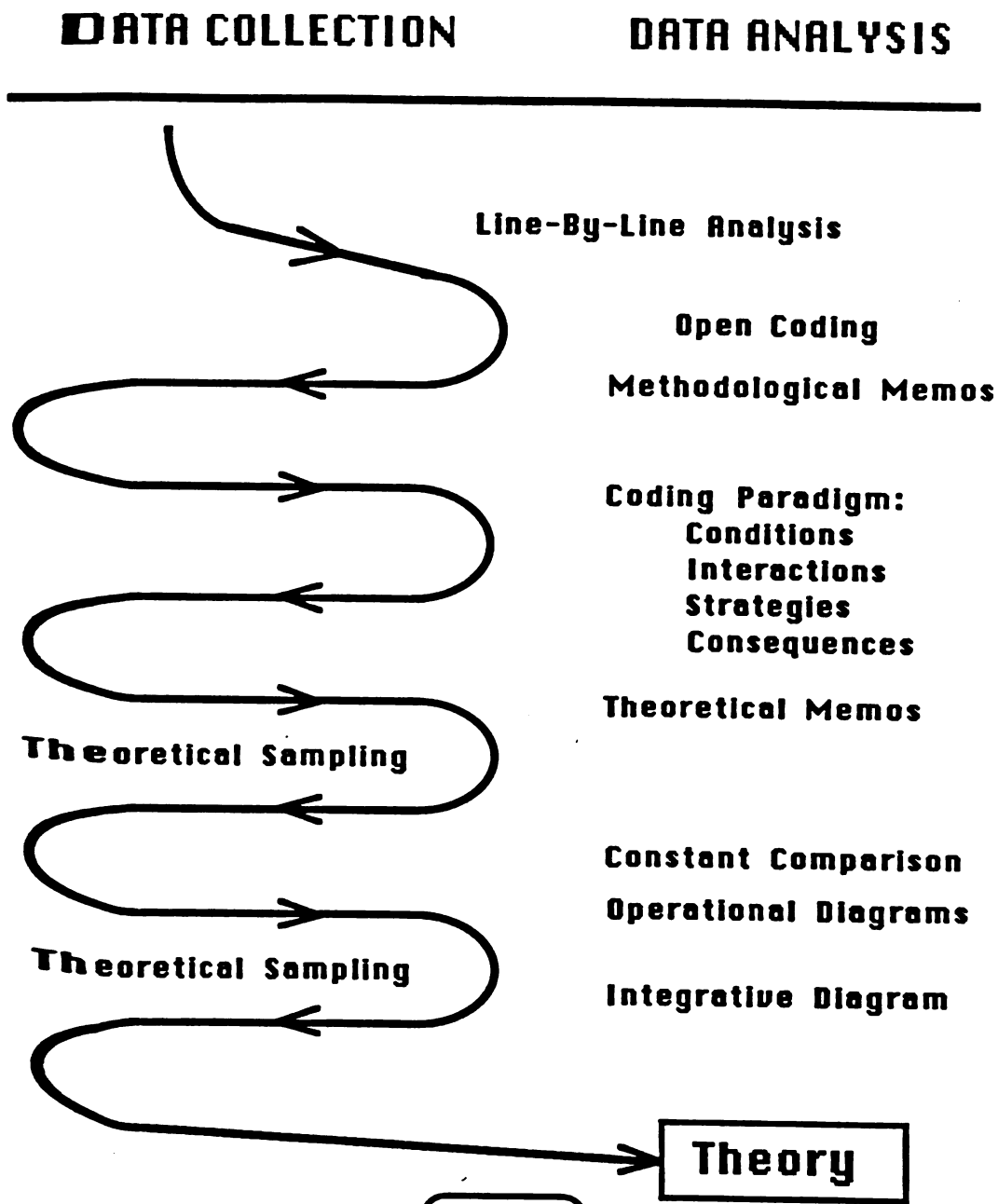


Figure 2

## Family Paradigm About Sibling Relationships

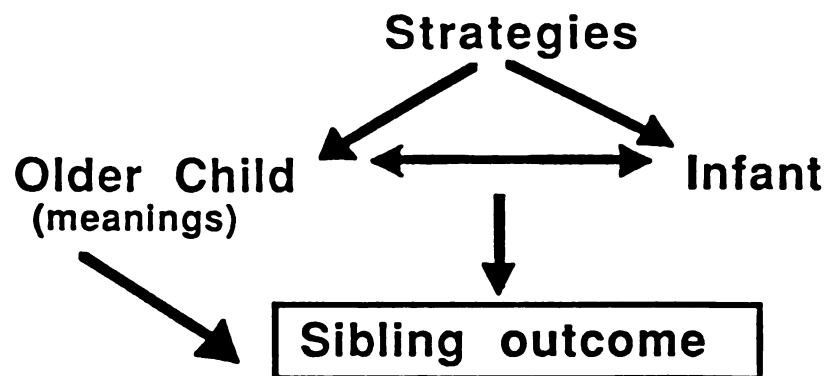
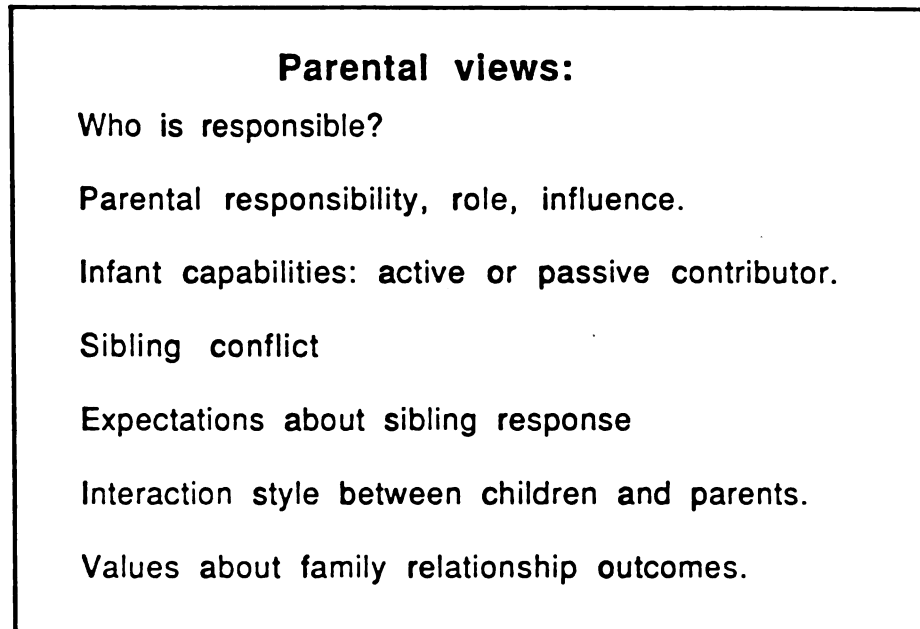


Figure 3

Early Operational Diagram

collection, it is most commonly used in field research with qualitative data from interviews, participant-observations, biographies, documents, and other situational or historical sources (Schatzman & Strauss, 1973). This study included several forms of data not previously used in grounded studies including videotapes and children's drawings.

#### Appropriateness of GTM to this Research

Grounded theory methodology has been identified as especially appropriate for: a) unexplored areas of inquiry where knowledge is lacking; b) areas of inquiry which lack previous theory development; and c) research on old questions for which a new perspective is desired (Stern, 1980). On these bases alone, grounded theory analysis was an appropriate choice for this investigation: The study of sibling relationships in childbearing families is a new area of inquiry--at least in the United States. In addition, this research sought a new perspective on an old question. The prevailing theoretical explanation of sibling response when a new baby arrives has been based on Freudian theory and this study sought an alternative explanation for sibling relationship outcomes.

However, the primary reason for selecting grounded theory methodology for this study was the fit between the method and the requirements of the research question. In order to move from descriptions of family interaction to an

understanding of sibling relationships in context, the method of analysis needed to forge the link between process and subjective experience. The constant interplay between family data and the emerging theoretical concepts made this an especially appropriate methodology.

#### Theoretical Perspective Underlying this Study

In grounded studies, theoretical concepts and hypotheses are derived from the data and verified in the data through theoretical sampling. This method differs from studies in which hypotheses are derived deductively from an existing theory and the research is then designed to test those hypotheses (Glaser & Strauss, 1967).

In grounded studies, a theoretical framework is not used to derive hypotheses a priori; however, this does not preclude the investigator from entering the research setting with a sensitizing perspective about the nature of the research phenomenon. A researcher's perspective may represent past experience and clinical knowledge, as well as a conceptual understanding of the phenomenon of interest. Sensitizing questions for the research may come from clinical expertise or an extensive review of previous research. Also, a formal theoretical framework may serve "as a lens through which the field researcher identifies the major observational parameters of the study" (Davis, 1986).

Investigators using grounded theory methodology most frequently have assumed a "symbolic interactionist"

perspective. The developers of the methodology came from that theoretical view and both the method and the interactionist framework are suited to the study of social interaction and meanings. However, it is equally appropriate for investigators to come to a grounded study from a variety of other conceptual perspectives, based on the fit with their respective research question.

The study of the process of sibling relationship development in families required a theoretical perspective which accounted for not only individual experience and family interaction, but also the reciprocal interplay of numerous developmental and contextual factors over time. Furthermore, previous research and the complex nature of the phenomenon of interest required a sensitizing perspective which allowed for the contributions of infants and children to their own development.

The life-span developmental perspective provided an appropriate "fit" for the contextual, interactive, and developmental aspects of this research. Furthermore, the life-span perspective is consistent with the use of grounded theory methodology which specifically addresses interaction, context, process, and pattern in research phenomena.

Although the life-span framework is not a "family theory" in the formal sense, it acknowledges the primary influence of the immediate, ongoing social environment (usually the family) in developmental processes. The

following statements represent the basic assumptions of the life-span perspective:

1. Development is ongoing throughout the life-span. In families, for example, both parents and children are developing over time.
2. Developmental processes of change and consistency over time are the product of multiple interacting factors: biological, social, historical, and environmental.
3. Human developmental processes occur in social contexts and cannot be understood apart from that context.
4. The family is the most influential context for human development during childhood.
5. Children and their families have a reciprocal influence on each other.
6. Individuals are active participants in their own development.
7. There is great potential for change, as well as consistency, because of the reciprocal contributions of both the individual and the environment. This concept of developmental plasticity is a pivotal point in the life-span developmental perspective and supports the first assumption of development continuing throughout the life-span. (For further discussion of the life-span developmental perspective applied to children and families, see Belsky, Lerner, and Spanier, 1984; Clarke and Clarke, 1976; and Lerner and Spanier, 1978.)

The period surrounding the birth of a baby is recognized as a naturally occurring developmental transition for a family (Lamb, 1978a). Furthermore, individual development of the sibling and the infant, as well as the parents, can be expected to influence family relationship processes (Lerner & Spanier, 1978). Understanding the sibling relationship through this broad theoretical perspective directs the researcher to study siblings within their family context, including family interaction as well as individual differences and meanings.

In a grounded study, a theoretical framework may assist the researcher in devising initial sensitizing questions and may influence the initial selection of the sources and forms of data to be sought by the researcher. However, as data are gathered and analysis begins, the ongoing research is guided by hypotheses derived from data, rather than by a preexisting theoretical framework. Those emerging hypotheses may even lead in a direction which is unexpected and inconsistent with the initial theoretical perspective. It is not inconsistent with grounded theory analysis to relate the findings of a grounded study to an already existing framework, provided the data support the theoretical framework. But one must resist the temptation to force or fit the data into an already existing framework.

Ideally, an investigator enters the research setting "with as few predetermined ideas as possible" (Glaser, 1978,



p. 3), that is, without prior conclusions. This supports the researcher in being open to relationships which become apparent in the data--rather than trying to make the data fit a preconceived theoretical viewpoint.

One's previous knowledge and clinical expertise can be valuable in raising initial questions about the research area as well as in knowing where to look for answers to questions that arise during the research. In these ways, prior knowledge and experience facilitate purposeful, systematic investigation. However, constant personal discipline is required to be willing to see old studies in a new light, to question clinical assumptions when the data cast doubt on previous "knowledge," and to trust the data to guide the theory and not the reverse. Trusting the data may lead the researcher to refute previously held views or may take the research in completely new directions. (It is for this reason that it is often said that ending up with findings which one did not expect can be one of the most satisfying experiences in doing grounded theory research.)

#### Design and Methodological Details

This short-term longitudinal qualitative family study focused on the process of sibling relationship development when a new baby enters a family with a school age child. The purpose of the study was to derive from the data substantive theory which could help to explain the

development of early sibling relationships. The primary research question was: How do sibling relationships develop over time and what are the factors which influence that process? Sensitizing questions included: How does sibling-infant interaction change or remain stable over time? What meanings do new babies have for older siblings? What are the patterns of parental communication to the older sibling about the baby? and How do parental values and communications impact the actual sibling relationship? The following section discusses the design, sample, settings, and data collection methods and process of analysis used in this research.

#### Design: Longitudinal field study

This research was designed to examine family interaction patterns and processes which naturally occur with the arrival of a second child. In order to accomplish this, intensive data collection from a few families was done over a period of 5 months. Families entered the study in their last trimester of pregnancy and were followed through their 4th month postpartum. Multiple field research strategies were used to obtain family data including interviews, observations, and anecdotal journals.

#### Sample

Approval was obtained for the study from the Committee for Human Research. A convenience sample of eight expectant families were recruited for this study. The families needed

to have both mother and father in the home, be experiencing a normal pregnancy, and have a school-age child between five and eleven years of age living in the home. This age range was selected for several reasons. First, the school age level was a previously unstudied age-group. Also, the verbal abilities of these children could help to clarify the experience from the sibling's point of view. In addition, clinical experience suggested that relationships between school-age children and infants are unique (different from those of adolescents or preschoolers), although the exact nature of the difference was not understood.

Families were recruited through birth centers, physicians, and childbirth refresher classes in the south San Francisco Bay area. The eight families were all caucasian and ranged economically from middle-low to upper-middle income levels (self-report). Demographic data on ages of family members, gender of children, educational level of parents, and economic level can be found in Table 1.

#### Data Collection: Times

The investigator gathered all of the data at 6 data collection time points: once prenatally, once immediately after the birth, and four times postpartum (see Table 2). Grounded theory methodology neither requires nor prohibits such preselection of time points; however, the nature of

**Table 1.**  
**Demographic Data**

<b>Family</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>
<b>Parent's Ages:</b>								
<b>Male</b>	38	32	29	40	37	38	32	41
<b>Female</b>	35	27	27	38	36	40	32	40
<b>Length of Relationship:</b>	14	6.5	3	13	28	18	10	24
<b>Length of Marriage:</b>	11	6	N/A	12	14.5	18	7	10
<b>Previous Marriage:</b>	N/A	Wife	Wife	N/A	N/A	Wife	N/A	Husband
<b>Educational Level:</b>								
<b>Male</b>	PhD.	B.S.	B.S.	PhD.	B.A.	H.S.	M.S.	B.S.
<b>Female</b>	M.A. M.Ed.	H.S.	H.S.	M.A.	B.A.	2yrs. College	B.S.	B.A.
<b>Newborn Gender:</b>	M	F	F	M	M	M	F	F
<b>Other Children Gender/Age*:</b>	M5-3	F7-10 F2-5 M2-9	F7-7 M5-5	F9-9	F8-11 M4-2 M8-2	M11-4 M6-3	M6-0	M7-2

\* Age = Years-Months at Birth of Infant

Table 2.

GUIDE FOR DATA COLLECTION	
TIME PERIOD/SETTING	DATA COLLECTED
9th month pregnancy	Parent interview and child interview
Home	Brief videotaping
Intrapartum	Observation of sibling's first meeting
Hospital	with infant (Videotape or field notes)
4-6 weeks postpartum	Family observation (videotape).
Home	Child and/or parent interview.
<p>The decision as to which interview (child's or parents') was done at a home visit was based on: 1) emergent questions arising from ongoing data analysis, and 2) availability and comfort of the children and parents at the time of the home visit.</p>	
2 months postpartum	Parent and/or child interview
Home	Family observation (videotape)
3 months postpartum	Child and/or parent interview
Home	Family observation (videotape)
4 months postpartum	Family observation (videotape)
Home	Child interview
	Closing parent interview

The videotapes were duplicated so that each family had a copy of their videotaped data. Arrangements were made to return to each family after the fourth month to deliver the videotape and to view selected portions with the family.

this research question indicated the value for such an organizing plan. First, the research questions were developmental in nature and required frequent, repeated contacts with families in order to obtain empirical data as continuously as possible. Gathering data at monthly intervals permitted observation of stability and change in family interaction over time, and also maintained frequent enough family contact to minimize a sense of strangeness during researcher visits. In addition, data collection at regular intervals facilitated organization of the multiple forms and large quantities of data over time.

#### Data Collection: Settings

Data were collected in the settings in which the family interaction naturally took place: in the hospital or birth center when the child met the baby for the first time and in the home at monthly intervals. Several considerations led to the decision to use direct observation in naturalistic settings.

One of the theoretical assumptions at the beginning of this study (discussed in the theory section) was that sibling relationships develop as a function of the family context in which they occur. Some researchers have designed and used instruments to measure contextual factors in families, family environment or family functioning (Bradley & Caldwell, 1976; McCubbin & Thompson, 1987; Moos & Moos, 1981). However, previous studies of siblings have indicated

that differences in sibling outcome are significantly influenced by ongoing family interaction patterns.

Instruments tend to be static or inadequate measures of complex interactional patterns, especially changes that might be expected to occur as a family adjusts to a new member. Although self-report tools may provide a measure of how the family members perceive the "environment" (as defined by the instrument, of course), they would not provide the essential interactive data.

Furthermore, early sibling relationship patterns have not been clearly identified in previous research. Generating theory that will be able to explain the relationship between family interaction and sibling outcome patterns requires observation of family interaction during periods of sibling contact. The decision was made to do direct observation of everyday family interaction in naturalistic settings and to observe as frequently as possible over a feasible period of time, in order to observe change and consistency in relationships between school age children and newborn infants. Using both interviews and videotapes together provided insight into family beliefs and values as well as family interaction and sibling relationships.

Videotaping was selected for observation purposes rather than paper and pencil participant-observation

techniques which are traditionally used in field research. This decision was made for several reasons. First, videotaping provides a form of validation which is not available with written notes. In writing observations, events may not be fully described in the moment and later one's memory of the event may be unintentionally altered or even inaccurate. Interactions that do not stand out as significant at the time may be overlooked. Using videotapes allowed the researcher to go back and review the data numerous times to verify events and theoretical constructs during analysis. In addition to providing a self-checking mechanism for the researcher, the videotapes provided an objective basis for collaboration and validation with experts when needed.

Secondly, recent technology has made videorecording in naturalistic settings more feasible. Small, battery-powered camera units have made video equipment less cumbersome. Also, the ability of newer cameras to operate in low light settings makes videotaping in the home a reasonable choice. Thirdly, by using videotapes, microscopic analysis of family interactions is possible, a form of "line-by-line" analysis of visual data, one might say.

As with any photographic and/or observational research, the presence of the camera and research can be assumed to have some effect. And how families respond differently to the added presence of the camera must also be viewed as



data. Experience with the videotaping showed that filming at times of normally high family interaction (getting ready for a meal, cleaning up after a meal, bathing the baby, or getting children ready for bed) helps to reduce much of the "on stage" quality of the family interaction.

#### Data Collection: Methods

In order to understand the sibling relationship from the child's perspective as well as the parents', multiple forms of data were gathered, including both visual and verbal data from children and parents.

Videotaped observation of child's first meeting of newborn. Six of the families delivered in a hospital and the videotaped observations were done soon after in the recovery room, outside the nursery window, and/or in the mother's postpartum room. One family chose to deliver at home and requested that this part of the research be omitted in favor of a research home visit at nine days postpartum. One family delivered in an out-of-hospital birth center and videotaping of the older child's interaction with the infant began immediately after the infant was born.

Videotaped observations of everyday family interaction. From the first through the fourth month postpartum, the researcher made monthly home visits at a time when the baby was awake and all family members were at home. On a few occasions, a visit needed to be scheduled at a time

convenient for the children's waking schedule, even though the father might not be home for part of that visit.

Videotaping averaged 30 minutes in length, and included all family members, with a focus on sibling interaction and parent communication with the children. Times for the visits were varied as much as possible (within the limits of family schedules, illness, and vacations) so that activities at various times of the day could be included. All families were filmed during a baby bath, around meal times, and during bedtime activities. At the end of the study, videotapes were shared with the family so that they could see what was recorded and provide feedback on possible reactive effects. At that time, copies of their videotapes were given to the families to keep.

Interviews with the school age children. Interviews with the school age children were conducted during the prenatal visit and then 3-4 times postnatally. The interviews were done in private, usually in the child's room. Interviews lasted approximately 10 minutes, but sometimes were longer if the interviewer took the time to admire new toys or other possessions, to listen to the child read a story, or to appreciate a new skill the child had acquired since the last visit (like high-jumping a bar onto the bed or putting together an erector set). Typically, the interview began with an open-ended question about how things were going for them or what the baby was doing lately. Other

questions tried to ascertain what meaning the baby had for them and how they saw their role with the baby (see sample of children's questions in Appendix B). Typical questions included: What do you think babies are like? What do they do? If a friend of yours found out he was going to have a new baby in his family, what advice would you give him? What do you think he would need to know about being a big brother? Do you think he might be worried about anything? What is the best thing about having a baby in the family? What is the worst thing about having a baby in the family?

Joint interviews with the parents. An in-depth interview with both parents together was conducted prenatally and lasted approximately 1 hour. Questions in the interview focused on prenatal events and their expectations about the older child's response to the baby, as well as on their own sibling experiences in their family of origin (see Appendix B for sample questions). Typical questions to the parents included: How and when did they decide to tell the children about the baby? In what ways had the school age child been involved during the pregnancy? What were their plans for the birth? What had they told the children to expect after the baby arrived? Where were they in their own sibling constellation? Which sibling were they closest to and why did they think that was so? How did they expect their children to respond to the baby after the baby was home? An

effort was made to fully understand the parents' rationale for their strategies and expectations, and parents were usually able to verbalize their beliefs and values quite clearly. All interviews were audio-taped, transcribed by a typist, and then erased when the transcript was reviewed and cleaned by the researcher.

Anecdotal notes and children's drawings in a blank book. Each family received an 8 1/2 x 11 inch blank book with a handwritten title (e.g., The Book about Being a Big Sister). The parents were invited to jot down anecdotal notes and/or insert pictures about anything they thought pertained to the sibling relationship. The children were told that they could draw pictures or write in the book, whatever they wanted. As entries were made in the book, they were photocopied and the book was returned to the family. At the end of the research, the book remained the permanent property of the family, like a scrapbook about the sibling relationship. It was expected that each family would use the book as much or as little as they wanted, and that the data would be adjunctive to the interviews and observations.

How the families actually chose to use the book turned out to be as informative as the contents of the book. Although variations in using the book were expected, it was a serendipitous discovery to discover that the way each family used the book was a reflection of their family

context and style.

In one family where the parents put a high priority on **the** older children being involved with the baby, the book **was** full of spontaneous, expansive drawings by both school **age** children. The drawings documented milestones in the **baby's** development, events in the baby's life, and the older **children's** perspectives about all of that.

In another family where the parents were very concerned **about** following the rules and doing things right, the mother **wrote** all her comments on scratch paper first and then **rewrote** them into the book, using neat handwriting. She **pasted** pictures into the book and wrote captions for them. **There** were no spontaneous drawings or notes in the book, and **after** the first couple months, there were no new entries.

In another family, the mother was the central authority **in** the family and she tried as much as possible to keep a **rein** on her 6 year old son's behavior. She reported that **she** and her 6 year old son had gotten into an argument about **who** the book belonged to. She had finally "given up" by **letting** him keep the book in his room and no longer making **entries** in the book herself.

### Analysis

Data analysis began with microscopic examination of the **int**erviews as soon as they were gathered and transcribed. **In** line-by-line analysis, a process of open coding revealed

what was salient to families in their experience of preparing the older child for the new baby. Parents had numerous strategies which they used, but which strategies they selected and how they used them suggested hypotheses which guided further data collection.

It became apparent that parental strategies revealed something unique about a family's way of communicating with the older child. The hypothesis arose that how parents prepare the older children might be related to certain beliefs, expectations and parenting style. In response to this hypothesis, theoretical sampling led in two directions: back to previously collected data to compare parent strategies and family values among families, and forward, toward further data collection to identify the dimensions of family belief systems and to discover their relationship to sibling outcome.

The ongoing process of analysis involved working back and forth between the several forms of data (videotapes, interviews, and drawings) and the evolving theory. Comparisons were made within and across families as theoretical constructs took shape. In order to make comparisons across families with the visual data, similar events from all families were transcribed onto one tape and viewed together. For example, all baby baths were placed on one tape, and all "first meetings in the hospital" were put on another tape in order to facilitate comparisons among

families.

Different forms of data informed the theory development process in unique ways. For example, parent interviews provided the most valuable source of data on family values and beliefs. Children's interviews provided for an understanding of the meanings that the infant's arrival had for the children and their view of the sibling role. The videotapes provided the most valuable data on parent-child communication and sibling-interaction patterns, and the behavioral dimensions of sibling-infant interaction patterns were identified primarily in the videotapes.

The children's drawings were used primarily to validate or further illuminate concepts that appeared in other forms of data. (Several drawings will be used in the subsequent chapters to demonstrate certain concepts in the theory.) An expert on children's drawings was consulted near the beginning of this study in order to discuss possible avenues for analyzing the drawings. A decision was made not to use an already established framework or technique for analyzing children's drawings and to use them primarily to validate or illuminate concepts that arose from other sources. The primary reason for this decision was similar to the rationale for not forcing data into pre-existing theoretical frameworks in a grounded study. The current methods of interpreting children's drawings are most frequently linked to psychological or stress-related theories, and analysis of

the child's psychological response to the baby was not the focus of this study.

### Validity and reliability

The multiple forms and sources of data provided for a method of triangulation through which to check the data. The various sources of data provided different perspectives and and relying only on one form of data would have given a less valid picture. In fact, using only one form of data would have led to false conclusions. For example, in one family, the parents and both school age children reported that the child who had the most frequent opportunities for interaction with the baby was the 9 year old daughter. However, the videotapes indicated that she rarely handled the baby. Follow-up through the parent interview revealed that the mother had talked to her on other occasions about not monopolizing the baby, and perhaps while family interaction was being filmed, the daughter was curbing her usual practice of being the one to handle the baby. Relying only on the videotapes would have given a less accurate perspective, and the interviews provided an opportunity for validating both the visual and earlier verbal data.

Reliability is usually defined in terms of replication. Since qualitative work is generally understood as not being replicable in the traditional definition of that term, reliability in qualitative research has been defined as



"Corroboration" (Sandelowski, 1986). Reliability of the findings was addressed in an ongoing way by collaborating with other researchers with expertise in specific areas. Sometimes this took the form of jointly viewing selected videotapes so that the researcher could see if similar concepts were identified by others and find out what things were being overlooked in the visual data. At other times, the diagrams and theory development were shared with other researchers in order to receive feedback on the theoretical constructs. At other times, the findings were discussed with researchers who were actively studying siblings and newborns, comparing the findings of this study with their work and asking questions about how they would interpret the same data if came from one of their families. This process of collaboration was especially informing.

The following chapters discuss the theory which was derived from analysis of the data. Chapter 4 provides an overview of the theory, followed by three family case discussions. Chapter 5 discusses the family context, including family values and beliefs about siblings and parental communication related to sibling interaction. Chapter 6 discusses the dimensions of the core concept of sibling mutuality. Finally, Chapter 7 addresses the limitations of the study, the relationship of these findings to other sibling research, recommendations for future research, and potential implications for practice.

## CHAPTER 4

## OVERVIEW AND FAMILY CASE STUDIES

Overview of the Developed Theory

The purpose of this study was to develop substantive theory from family data that could be used to explain the relationship that develops between school age children and their newborn siblings. Such a theory would need to address the family context in which sibling relationships occur, the meanings the baby has for the school age child and the sibling relationship itself. The beginning theory developed through this research focuses primarily on the sibling relationship and discusses some family conditions that were specifically identified as being related to sibling interaction.

Sibling Mutuality

The most significant finding in this study has to do with sibling interaction. The data revealed that some children were especially sensitive in reading infant cues and responding contingently and empathically to the infant--a quality labeled sibling mutuality. These children seemed to handle the baby with an intuitive awareness of the infant's feelings and needs, and their interactions with the baby were characterized by both reciprocity and intimacy. The term sibling mutuality was selected because it represented both the interactive and the personal dimensions of this sibling relationship pattern.

Eight behavioral dimensions of sibling mutuality were identified in the data (see Table 3). Some children demonstrated all of these behavioral dimensions as early as the first month following the infant's arrival and demonstrated continuity in that response over the period of the study. Other children, at least during the period of time covered by this study, tended to ignore the infant, to interact with the baby in ways that were largely unrelated to the baby's needs or behavior, or to respond repeatedly in non-contingent ways to the infant's cues.

#### The Family Context

Conditions which appear to be related to these differences in sibling interaction were identified in the family context, including family beliefs and values, and parental strategies and communication patterns. Each family expressed a certain constellation of beliefs and values concerning family and sibling relationships; some parents were very articulate in discussing these values. Parents referred to these beliefs and values in explaining the strategies they used with the older child in preparation for the baby's arrival. Whether these beliefs and values actually led to parental strategies or were used only retrospectively to explain the strategies cannot be stated without reservation.

This constellation of family beliefs and values was

Table 3.

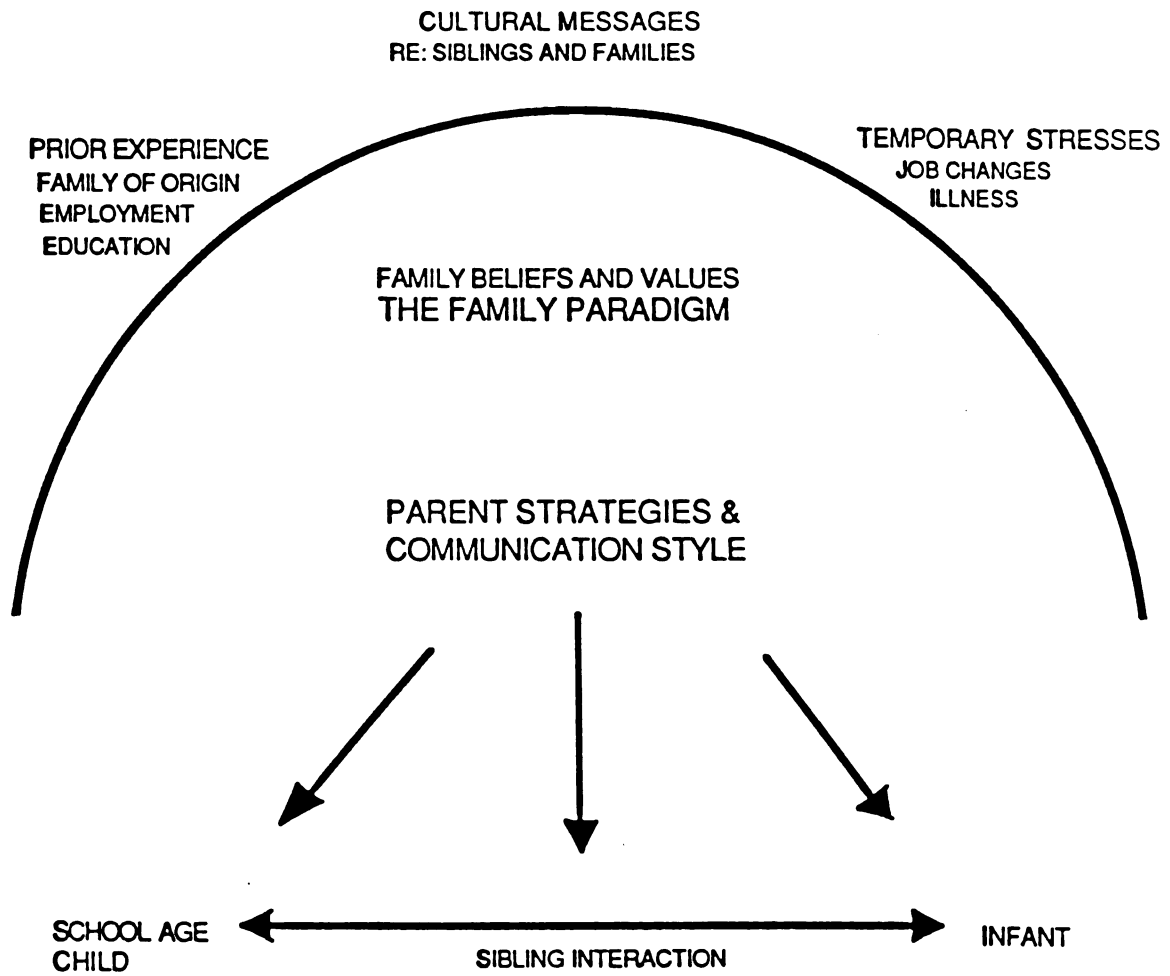
## BEHAVIORAL DIMENSIONS OF SIBLING MUTUALITY

- Maintaining intimate distance: Reaching out and moving in; attempting to engage the infant. Establishing contact and maintaining intimate distance.
- Identifying infant behaviors: Identifying infant capabilities and reading infant cues.
- Ascribing feelings and intent: Speaking for the infant and/or stating the infant's thoughts or wishes.
- Empathizing: Sharing in the infant's emotions or expressing concern or caring for infant's feelings.
- Embodied awareness in handling: Handling the infant with an intuitive awareness of how the baby might feel when handled in that way.
- Affective associating: Expressing affection, pleasure, and/or pride in association with the baby.
- Personification: Treating the infant as a separate person, with needs different from one's own.
- Reciprocal, synchronous interaction: Recognizing the bi-directionality of interaction and responding contingently to infant cues.

coded, the family paradigm. The term was chosen because this system of beliefs seemed to be the "world view" which was used to explain actions taken and not taken. This term is not proposed as being all-inclusive. For the purposes of this study, the family paradigm includes beliefs which are specifically related to sibling relationships, including ideas about sibling rivalry, infant capabilities, and shared responsibility for the baby. The family paradigm also includes values about what things are important in family life such as "togetherness" or "self-sufficiency."

The immediate family context itself is embedded in a historical and cultural context which includes past experiences of the parents in their own family of origin, previous experience--such as educational or employment experience, and cultural messages about siblings and families. These are the conditions within which the family paradigm evolves, and along with the paradigm, they provide the context for the kinds of strategies parents use with their children (Figure 4).

The term strategies includes intentional strategies (those intended to influence the sibling relationship) and unintentional strategies (actions which may be carried out for other reasons but which appear to have consequences for the sibling relationship, as well). There is a third category of parental action that appears to be most immediately related to sibling interaction: that is, the way



## SIBLING MUTUALITY

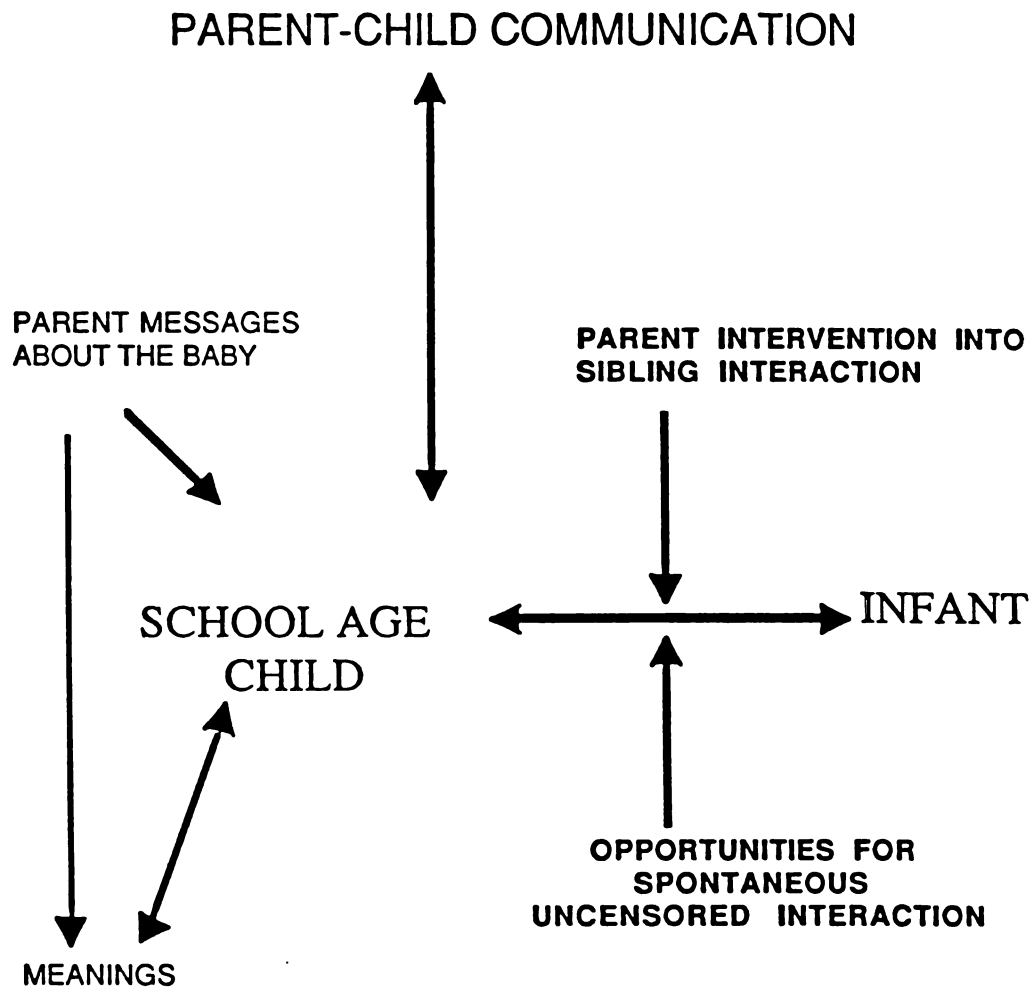
Figure 4

Family Context for Development  
of Sibling Mutuality

that parents communicate on a day-to-day basis with the older child and their communication in response to sibling-infant interaction. That third category was labeled, parental communication style.

Early in the analysis, it was hypothesized that the differences in sibling mutuality could be directly traced to the family paradigm: the beliefs and values which parents used to explain their intentional strategies. However, a different explanatory link was identified through analysis of videotaped family interaction. Comparison of the interaction in families of the children who demonstrated sibling mutuality with the interaction in families where sibling mutuality was not observed, indicated that the development of sibling mutuality seemed to be most profoundly influenced by one portion of the model: everyday parental communications (Figure 5).

This was first suspected by the following recognition: that in families where sibling mutuality was most visible, the parents interacted with the school age child with a similar kind of mutuality. They responded contingently to the child's questions, concerns and interests. They communicated in a way that seemed to respect the child as a person of value, with needs and feelings that were unique. That is to say, the school age child had a personal experience of being the recipient of or the participant in a



**Figure 5**

**The Relationship between Parent Communication  
and Sibling Interaction (Murphy, 1988, May)**



relationship of mutuality.

In families where children did not demonstrate sibling mutuality, the parents did not demonstrate similar dimensions of mutuality in their interactions with the older child. They tended to communicate with the school age child in a non-contingent way. The primary parental communication style toward the older child was one of either ignoring or giving corrective comments and directives. These parents also tended to restrict opportunities for spontaneous infant-sibling interaction by interrupting sibling interaction with rules or corrections and limiting opportunities for spontaneous, uncensored sibling-infant interaction. Furthermore, temporary family stresses such as illness or job changes seemed to increase parental ignoring and non-contingent responses to the older child, and to reduce the behavioral manifestations of sibling mutuality.

The theory constructed through this study suggests that the experience of mutuality between parents and the older child is a condition which is directly related to the development of mutuality between the school age sibling and the infant. Furthermore, parental strategies directed toward sibling-infant interaction which are corrective or prohibiting appear to reduce behaviors of sibling mutuality; and parental strategies which allow frequent, spontaneous, uncensored sibling-infant interaction tend to foster the behavioral dimensions of sibling mutuality.

This chapter describes three different families in the study in relationship to the theory. These three families were selected for case discussion because they represent distinct variations of the theory. They demonstrate different constellations of beliefs and values, widely varying parental strategies based on those beliefs and values, variations in meanings the baby has for each school age child, and examples of different sibling relationship patterns--some of which are mutual and others which are not. These family examples will provide a reference point in the chapters to follow, and will also help to give the reader a sense of the nature of the data on which the theory was developed.

Chapter 5 will discuss in greater detail the conditions within the family that appear to be related to sibling relationship outcomes. Chapter 6 will define and elaborate on the behavioral dimensions of sibling mutuality.

#### Case Study 1: The Armstrong Family

##### Family structure

Alex and Ann Armstrong were in their late thirties and had been married for 11 years. Both had advanced academic degrees with special expertise in education and had taught previously in elementary school. Alex had recently taken a new job which he appreciated because it utilized his multiple skills in education, business, and technology. A

year ago, Ann decided to stop her job and stay at home with their two children. Adam was now 5 1/2 years old and Andy was 2 1/2 years old. They were expecting a third child and through prenatal diagnosis they knew the baby was a boy.

#### Family Paradigm

Throughout the study, in family interaction as well as in interviews, Alex and Ann demonstrated broadly shared responsibility for childrearing and household tasks. They also portrayed a clear sense of "we are the parents; they are the children" (a concept described by Kreppner, et al., 1982b, and associated with positive sibling outcomes).

These parents were extraordinarily articulate about their values and beliefs and the rationale for their parenting strategies. Certain themes recurred throughout the parent interviews: the importance of being independent, avoiding competition, being self-sufficient, and possessing high self-esteem. Their messages to the children consistently emphasized: "You are special," "You are capable," and "Grown-up is good." A family ritual had evolved over the last couple years: Alex made up bedtime stories about "The Two Armstrong Brothers." He explained that certain components of the stories were always the same: Adam and Andy were always heroes, always very capable (doctors, scientists, or other strong role models), and always helping others. (Samples of these stories can be found in Appendix B.)

Alex and Ann were sensitive to each child's developmental level and provided generously for their learning needs, both inside and outside the home. Videotapes of family interaction showed both parents doing a great deal of informal teaching during the daily family routines of baths, dinner, dishes, and baby care. Ann was also busy taking the children to swimming lessons and arranging preschool. These activities were considered to be a natural part of their role as parents.

In keeping with their understanding of developmental psychology, Alex and Ann explained that they wanted to make as few alterations in the normal routine as possible so that the baby's arrival would be minimally "traumatic" to the children. They also wanted to make any necessary changes well in advance of the baby's arrival: The sleeping arrangements were changed ahead of time; Andy was being toilet trained ahead of time; and both children were encouraged to be more self-sufficient and to rely less on their mother's help. Ann explained that Andy sometimes pretended that he was a baby and she saw this as a reaction to the baby's impending arrival. Her strategies for this reflected their family paradigm:

We just say, "You can pretend you're a baby if you want for awhile, but you're really a big boy." And I've been trying to show him the nice things about being older you know, that big brothers can do this and bigger kids can have ice cream --horrible things, but things that he can relate to-- instead of thinking that it's so wonderful to be a baby. Not so

much that he's gonna have a little brother, but that there's all these things that he can do that big brothers can do.

In preparing for the baby, the parents wanted to ensure that the newborn was not a threat to the children's self-esteem; that the older children would feel that nothing, neither possessions nor attention, was being taken from them; and that each of them still felt he was special. Alex explained their rationale:

I think the reason we do those things is basically to reduce the sense of competition. What you're trying to do is to do two things: One is, you're trying to establish positive things that the older child can hang onto as support for their identity and who they are, so that the new child coming in doesn't threaten their self-esteem. And part of that is, you're trying to minimize the degree of competition between the new child and the existing children. You're doing that in some tangible ways. The place where it hits the most is one of attention. And so if you have enough other things going on, to let the kids feel independent, valued, prized, and successful, then they will see that it's the truth. (The children quarreled in the background, and Ann intervened to negotiate a settlement between them. Alex chuckled and said:) Competition!

In the parents' view, sibling rivalry would be expected to happen unless they, as parents, instituted strategies to avoid such competition. In their explanations as well as in the videotaped interaction, these parents demonstrated that they saw themselves as primarily responsible for how the children (and therefore, the sibling relationship) turned out. The parents were not only responsible for providing opportunities for mastery and reinforcing the self-esteem of each child, they were also responsible for being arbitrators

for sibling squabbles and avoiding psychological trauma. The mother was understandably worried about where she would find the additional time needed when the baby arrived: "I spend so much time either policing them, or chauffeuring them, or just catering to them." One of the natural consequences of a world view which emphasizes parental responsibility for sibling outcome seemed to be the increasing and unrelenting parental work load.

The emphasis on independence and avoidance of conflict also seemed to be related to their style of family interaction. During the prenatal visit, Alex was preparing the family room for painting and Adam was helping. As was typical in their family, Alex and Ann gave Adam frequent positive feedback for his valuable participation. Meanwhile, the two boys went about their activities independently. There was frequent parent-child interaction, but minimal sibling interaction. The sibling interaction that did occur was usually initiated or mediated by a parent. This continued to be the pattern in the postnatal family observations: Both parents were constantly in tune with each child, responding immediately and contingently to each child's requests; meanwhile, both children interacted actively with the parents and functioned virtually independently of each other. If sibling conflict broke out, the parents were skilled in reducing the conflict, using strategies that a preschool teacher might use in handling

conflict, and thereby defusing it quickly.

Views about infant capabilities. Their expectations about how the children would respond to the baby reflected their beliefs about infant capabilities as well as their understanding of their children's personalities. They believed that the baby might be a novelty at first but they expected the older two children probably to ignore the infant. Ann explained her reasons for expecting disinterest:

I think they're going to discover that a newborn baby is not that exciting. I mean, I hate to say it. We'll love him to death, but I mean, they don't do a whole lot. They lie there, they cry, they eat, they poop, they pee, they sleep. That's about it. They're not going to smile.

This parental message about infants appears to be consistent with their family paradigm: "Big boys are interesting and capable. Babies are boring; they can't do anything interesting." Although these parents acknowledged that other people viewed infant behavior differently, they defended their own perspective on infant capabilities.

Since the newborn was coming into an already existing family structure, Alex expected that the baby would probably be "schlepped around" for awhile and would just have to adapt to family routines. He also expected that the older two children might become more independent. "Maybe they'll turn to each other when they find that mommy and daddy just don't have the time." Ann observed that "it might be for

the good, because I think that we interact too much with them, and that we should plug our ears and let them sort it out." They foresaw that the baby's arrival might foster more closeness between the older children. In fact, there was some evidence of increasing closeness between them ever since the two older boys had been moved into the same bedroom.

Adam's expectations about the baby and his role as older brother seemed to reflect his own individual style as well as the family beliefs and values, and his exposure to books, parental teaching, and babies in other families. His parents described Adam as "thing-oriented." He liked to fix things, make things, and figure out how things worked. In contrast to his more sensitive younger brother, Adam focused primarily on problem-solving and mastery. Even his answers in the prenatal interview emphasized how much he knew, how capable he was, and how well he could help.

Adam: This is a new mobile here. I was the one that picked it out.... I know a lot about babies!! ....babies are pretty small...and it won't want to play. And they don't have much hair; and they drink from their mommies. [Interviewer and child looking at picture showing an older child holding a baby.] A: It's pretty difficult. I: What's difficult about it? A: The way he's holding it. You know what? I already know how you hold a baby to nurse the baby. I know it because I found out from one of my books, and it didn't tell anything about being a baby. It's about just having a baby monster named Fluffy. And know what? I saw him holding it and so it just showed me how.



I: What are the good things about being a big brother? A: I know the good things about being a big brother with a new baby. When you put the rattle down and you can't find it, they [big brothers] can find the rattle for the baby and give it to the baby. And they can help feed the baby.... I: If I were to say, 'What are the bad things about being a big brother, what would you say? A: [pause] I don't know any. All I know is good. I like doing all those things.

For five year old Adam, the baby's impending arrival meant an opportunity to demonstrate his mastery of new skills and his ability to be helpful.

#### First Meeting of the Baby

When the boys came to the hospital to meet the baby for the first time, they showed only brief interest in the baby. Ann had picked out gifts for them which she said were "from the baby." "They like people who give presents to them and I want them to like the baby, and so I don't really think they are going to question the mechanics of it." On their way to the hospital, Adam and Andy had been supported by their father in selecting presents for the baby. After they arrived and were greeted warmly by Ann, they opened their own presents and gave their gifts to the baby. Several times, Ann and Alex told the children: "You made great choices 'cause the baby likes what you picked out. The baby likes your present." They did not try to explain this in terms of infant behaviors. What was important was that the older child's self-esteem be supported, not that they be taught to look for behavioral responses in the baby. These

strategies were consistent with the parents' values about self-esteem and their belief that "babies don't do very much." At the hospital, Adam responded matter-of-factly to the baby. He played with his toys and every once in a while he turned toward the baby, reached out his hand, and stroked the baby with his whole hand, affectionately and comfortably.

#### Postnatal Outcomes

As early as one month, Adam demonstrated awareness of the changes that the infant's arrival created for the family. He expressed a rather pragmatic understanding of how his parents had to share responsibility for meeting all of the needs of the children.

Interviewer: Is there anything that's been not so terrific about having Aaron here? A: No.... Well, there would be one thing: That mom could be with us all the time that we need her. But if it's the weekend dad can do it. And if dad is busy and mom's here, she could do it. I: Do what? A: Help us. I: With anything in particular? A: Anything that we need help with.

With the mushrooming parental workload, Ann and Alex both kept busy, sharing responsibility for activities such as cooking, bathing the children, and providing stories at bedtime. In the middle of these family activities, whenever a child made a statement or asked a question, Ann or Alex immediately responded, contingently and with apparent interest, to the child's comments.

Adam's behavioral response to the baby remained consistent over the four months postpartum. Ann reported

that once in a while, every few days, Adam might look over at Aaron and remark on how cute he was or that he was smiling or doing something else, but that he basically "ignored" the baby. The parents did not actively urge him to hold or interact with the baby. On the contrary, if sibling-infant interaction occurred, it was infrequent and was always initiated by the older child.

Many of the meanings that the baby had for Adam remained consistent postnatally, as well. Throughout the four months, he talked about being capable and being able to help.

First month:

I: [How has it been?] A: It's been great for me and not so great for mom... 'cuz I like more about babies than mom does. I: Why do you think that is? A: Because she has to do all the work for them, but sometimes I do lots of work, like help change the diaper. And you know what else I do? I also help fold the baby's laundry.

Fourth month:

I: How is it being a big brother? A: Great! I: What's great about it? A: I get to help. When mommy can't put in Aaron's pacifier, I can do it; and when mommy gives Aaron a bottle and when she goes to burp him and she doesn't have a burp cloth, I go get it. And I like all that.

However, changes could be detected in the meanings that the baby had for Adam, particularly by the third month. Adam's descriptions of the baby were more specific to Aaron's behavior and capabilities. More importantly, Adam's descriptions seemed to indicate that he had developed a closer relationship with Aaron. Adam reported that the baby had told him a story about a bear in the woods with a puddy

basket, a story which Adam said he could understand because he used to speak baby talk himself. Also, interviews with Adam revealed other indicators of sibling mutuality: ascribing certain feelings and thoughts to the baby, recognizing that the baby had his own unique likes and dislikes, and identifying how the baby responded to his behaviors.

A: He likes when people talk to him. And he likes when rattles shake or he likes being showed new things that he's never seen before. Especially. Things showed to him a million times, same thing over and over again, then he cries. If he cries you know he's not happy. I: What do you do? A: I talk to him a lot and I sing pretty with him, and I rock the bouncy chair a little bit, and I shake rattles for him, and I help feed him.... When I shake the rattle at him, he smiles and then he goes like 'Wee.' But it sounds like to me, sort of like (in a high-pitched voice), 'I like that, Adam'....

A: He likes when I come over to houses and he gets to go there too. I wish he was my age and he was born on the same day. He'd go to Play Time Preschool. I mean he's going to kindergarten with me and I'd be back at the same time, and exactly the same date; so when I was home, he was home; and when I was at school, he was at school; then we could play together all the time. We'd play together and we'd always sit next to each other 'cause we were brothers.

Throughout the four months, Alex and Ann continued to report that Adam basically ignored the baby. The videotapes also demonstrated little or no sibling-infant interaction. Nevertheless, the signs of a mutual sibling relationship were apparent in the meanings this baby had for Adam.

#### Case Study 2: The Emerson Family

The Emerson family demonstrated some fascinating

contrasts in family beliefs and parental style as well as in sibling relationship outcomes. Edward and Eve were in their late thirties. They had known each other since they were in the fourth grade, and had been married for over 14 years. Both parents had earned college degrees: Eve, in religious studies, and Ed, in architecture. (Eve also had completed additional graduate courses toward a master's degree.) Ed was an architect. Eve had been a teacher and a counselor at a Catholic high school but was staying at home with the children at the time of the study. Their relationship appeared warm and collaborative, and they portrayed a sense of solidarity as parents.

During the period of the research, they were living in a two bedroom home with their three children, 9 year old Elizabeth, 6 year old Elliot, and 4 year old Ernie. The parents slept on a double bed in the living room so that Elizabeth could have her own bedroom. This was a temporary living arrangement while Ed finished remodeling their house.

#### Family Paradigm

Eve and Ed were thoughtful when discussing their beliefs and values. Themes that recurred in the interviews and videotapes emphasized the importance of "feeling connected," "being together as a family," and fostering each person's inborn potential. Eve recalled that the family unit was very important in her own childhood.

Eve: Being together as a family, that's what my parents emphasized.... I don't think our parents paid as much attention to us individually as I try to pay to my children, but I still keep that other value of being a family unit. That's really important to me. I think that's probably the strongest value that I consciously act out with my kids, with the added thing of looking at each child individually and nurturing what's there so they can be themselves.

Ed: It's become more apparent recently that we are a real family unit, and they look after each other and play well, and fight well.... There are families [who stay] very close to each other more consistently and cohesively as they grow into adulthood. If there are any goals that I have, that would be one of them.

Eve and Ed believed that certain parental attitudes sustained that family connection, including honest communication and respect for children's feelings. When asked what advice they would give to another expectant family with school age kids, they replied:

Ed: Just be as open with them as possible, in terms of explaining what's happening, talking about the whole situation. Actually, I don't think that's peculiar to having a baby, I think that it's just normal, and the way it should be all the time.

Eve: I think keeping them informed is key; and also, discussing feelings is really important.... When I spend time with them one-on-one, I'll try and talk about what they might be feeling and they can let me know if that's true or not. I think that every child needs that, needs someone to tune into them, and what their individual feelings are, their interests.

Videotaped family interaction demonstrated a parenting style consistent with these values: Both parents responded with genuine concern to children's feelings and gave honest, contingent replies to children's questions.

Ed and Eve saw newborn babies as neither passive nor boring. They viewed babies from birth as active

contributors to their own lives, even possessing a kind of indefinable wisdom. Each person is born with his/her own personality and potential, and the role of the outside world is to allow that potential to be expressed. As expectant parents, it didn't even make sense to decide what name a baby should have until it was born, "until you can see them and see what fits." In one sense, "babies name themselves."

Ed and Eve saw themselves as responsible for the children, but they also felt that there were limits to parental influence. They believed that they had an impact on the developing sibling relationships by setting a loving example in the beginning; however, with each additional child their parental influence was diminished. "We might have put 90% into Elizabeth, 50% into Elliot, and 25% into Ernie, because of the sibling interaction."

The Emerson's parenting style can be characterized as "allowing" and "non-interventionist." Eve described as significant a time when she consciously chose not to intervene in an interaction between the oldest daughter and the newly born second child. Soon after Elliot was born, Elizabeth (almost 4 years old at the time) was holding him and swinging him rather vigorously. Eve was about to admonish her not to be so rough. Then she thought, "If Elliot doesn't like it, he will let her know; he will cry." She explained that she still feels this way. She expects that if the children don't like something, they will

communicate that to each other; the parents do not have to defend or protect the children from each other.

An example of this parental style was most apparent in one videotape of noisy sibling conflict. Four year old Ernie was striking out at Elizabeth, crying and yelling because she was doing something he didn't like. (Most parents, especially when the video camera is running, are quick to squelch conflict or to correct the children so that such behavior does not appear on film.) Eve was sitting two feet away, nursing the baby, quietly watching the fight. Later she reported her response to be very typical of her usual parenting style. She tends to wait to see if the children will resolve the conflict on their own. In the videotaped observation, she finally intervened, but only after the quarrel continued to escalate and, as she explained, it became clear that the children were not going to resolve it without her assistance.

The parents explained that conflict was not seen as something to be avoided; it was seen as a natural part of living together and it provided an opportunity for individuals to learn how to get along with each other. Nevertheless, they did not expect sibling relationships to be characterized by constant conflict. Eve acknowledged that what they considered to be "normal" in sibling relationships was different from the standard Freudian view



of sibling rivalry and hostility.

I think that we both have expectations that siblings don't really hate each other or fight continuously.

We don't put up with that. I've heard attitudes from other parents, "Oh, that's just the way kids are and they do their fussing." And I don't accept that premise. I work from another premise, which is, we try our best to get along.... You can't hate someone continuously and you can't fight all the time. I guess we set up the expectation that they accept the new person, and find out who they are and give them time to express themselves.

The baby's birth was a family event. The parents believed that being involved in the birth helped siblings feel more connected to the baby as a person from the beginning. In keeping with their beliefs about open communication, the prenatal period was used as an opportunity to do some sex education as well as to demythologize the birth process.

### Elizabeth

Before the baby arrived, Elizabeth's ideas about what it meant to be a big sister were primarily based on her experiences with Elliot and Ernie. In videotaped observations of the three children playing together, Elizabeth often assumed a teaching and facilitating role. Both of the younger boys seemed to look up to her and frequently went to her for help. However, in the interviews, Elizabeth reported that being a big sister meant having brothers who invaded her space, denied her privacy, and "bugged" her. The best things about being a big sister

were: "You get to do more things," and "You get to tell them what to do." For Elizabeth, the baby's arrival meant getting her own room in the new house and getting to do more because she was the oldest. Elizabeth also expected that as big sister she would get to hold and feed the baby, assuming an active caretaking role.

After the baby arrived, Elizabeth quickly became comfortable helping with the baby. Eve reported that Elizabeth frequently picked up the baby when he was crying and tried to comfort him. At 6 weeks, she was changing his diapers (an activity that most children in the study avoided). Eve sometimes felt that Elizabeth was too controlling with the boys when they were interacting with the baby. Her admonitions to Elizabeth reflected her own view of the parent role:

I am constantly asking her, "back off" and let her brothers be, and not interfere with them too much, or "let them learn at their own pace," or something like that. But she has to keep asserting herself as the oldest one in the family. She gets a little too possessive, I think, with the baby. I've had to say, "There's no fighting over the baby," or "You take turns," and they work it out. Somehow it gets worked out. But she thinks she has proprietary rights sometimes.

While Elizabeth assumed an early caretaking role, she was slower to demonstrate a more personal, intimate connection with the baby. Even at 3 months (when most children in the study felt that the baby recognized their voice or their face), Elizabeth reported that Eric didn't

know her. At the end of the fourth month, she said he knew her because he smiled at her. (Whether or not the baby does recognize a sibling is not in question here, but rather, at what point do children impute meaning or understanding or relationship qualities to the infant.)

When asked what helps brothers and sisters get to know each other, Elizabeth's answers reflected the family paradigm: "playing together.... working together.... helping each other."

Although Eve pointed out to the children some aspects of infant growth and development, her style remained one of allowing rather than actively facilitating. Both Elizabeth and Elliot would pick up Eric without asking permission, and except for some admonitions designed to keep Elizabeth from monopolizing the baby, Eve said very little to them, neither praise nor criticism, about their handling of the baby.

Eve reported an incident when Eric was about two weeks old. Elliot placed him too close to the edge of the double bed and Eric slipped off, without injury, while Eve watched. This strategy was consistent with her own report of her non-interventionist parenting style, allowing children to learn things with minimal interference.

### Elliot

What stood out as remarkable in Elliot's prenatal interviews was that his descriptions of infant attributes and behaviors were almost all tactile and interactive.

"Every time I touch their hand, they grab my finger." When asked what a person can do with babies, he included not only "hold them" but also, "tickle them, kiss it, pet the baby's hair, pull the baby's hair back gently so as not to hurt it, and give the baby 'ba-ba'." His description of how to give a bottle to a baby indicated a sensitivity to the baby as the recipient. These appeared to be prenatal precursor's of mutuality.

After Eric's birth, Elliot's role as a big brother was personal and reciprocal, more a peer relationship than caretaker. He complained that Elizabeth got an unfair share of the caretaking opportunities and that the worst thing about being a big brother was not getting to hold the baby more.

At nine days postpartum, the videotape showed Elliot carrying the baby across the room without assistance, and without intervention from his father who was also in the room. As Elliot sat holding the baby, he kept his face close to the baby's, watching the baby intently and responding verbally to the baby when he moved. In an interview at 6 weeks, Elliot explained that if Eric was being held too tightly, he would push out against Elliot's body. This level of awareness of reciprocity was also observed in his handling of the baby. The videotape taken at 6 weeks provided one of the paradigm examples of sibling mutuality (see Chapter 6).

At the final parent interview, the parents spoke of the special closeness between Elliot and Eric. They also noticed an exuberant playfulness--a "roughness" in the way that Elliot handled the baby--with which they were not completely comfortable. (That rough, playful quality is one that was seen in other school age siblings in this study, and it usually appeared around the third or fourth month in highly mutual sibling relationships, regardless of the gender of the older child.) Ed seemed to understand the meaning it had for Elliot:

Ed: There's something that catches me about Elliot, and I'm not sure if it's just his response to the baby; but of all three of them, I think the person who would spend the most time with the baby would be Elliot, if he could. And, you know, he's a little bit rough with the baby. He gets--he's very exuberant, and it seemed like an isolated thing. But then I also put it together with something else. When he has another friend over in the house, he has that same level of exuberance that he really doesn't have with the rest of us as a family. He kind of really blossoms up. He's not out of control, but he's really more effervescent and out-going, and he's that way with the baby. Like he treats the baby more like one of his friends coming over to play in the house.  
Eve: Eric's a real friend to Elliot.

### Case Study 3: The Campbell Family

Carson and Carol Campbell were in their late twenties. Carol had been married before and her daughter, Cassandra, was almost 8 years old. Carson and Carol had been living together since Cassandra was 5 years old, nearly three years. They lived in a 3-bedroom duplex. Carson had a bachelor's degree in business administration and finance,

and worked free-lance in construction and also as a security guard. His ambition was to join the local police force. Carol was a high school graduate. When the study began she was at home, but by the fourth month after the birth she had returned to work full time as a legal secretary.

Their family structure was newer than that of either the Armstrongs or the Emersons, and Carson and Carol were continuing to negotiate some critical differences in parenting style and beliefs. Cassandra still had contact with her father and his new family and she referred to her step-father by his first name. The relationship between Cassandra and Carson appeared strained at the beginning of the study, and the parent interview revealed some of the bases for that.

#### Family Paradigm

Carol and Carson came from two very different family backgrounds. Carol was one of eight children in a family that often had additional visiting members. She remembered that everyone ate whenever they were hungry rather than having a set dinner time. She couldn't remember ever being punished--she didn't remember doing anything "wrong," per se, "just doing what kids normally do." She believed that "kids are kids" and "you don't want them acting like adults all the time." Her parents were not strict and although now she felt that she may have missed something as a child by

not having a regular family dinner time together, she saw her family of origin as supportive and very close. She remembered being responsible for looking after her two younger sisters--something which she resented at the time--and she promised herself that she would not do that to her own daughter.

Carol believed that parents should spend time with their children. However, since a new baby usually means that a mother can't spend as much time with the older child, she felt that the child should be understanding and accept that "mom is not ignoring you--babies just take up a lot of time." The discrepancy between her expectations of herself as mother (being available) and her actual parenting style (giving the older child less attention), seemed to create an uncomfortable dissonance for Carol.

Carson was raised by an autocratic, military career man, and a soft-spoken mother who submitted to her husband's authority. Carson's grandfather was apparently an abusive parent and Carson's own father was abusive to him. Carson remembers being beaten with a belt and sometimes with fists. He recalls a period of two years in middle grade-school, when he was confined to his bedroom, except during the hours of school and church. He remembers that this was his punishment for coming home with a report card that was "All A's but all U's." ("U" is used to indicate unsatisfactory behaviors in class.) At the time that the study began,

Carson was not on speaking terms with his sister and he admitted that over the years, his relationship with each parent had been up and down.

Carson and Carol were candid about their disagreements on child-rearing. It had been a source of conflict since they began living together. Carson expected strict obedience and issued very strict punishment. "In the beginning," they both reported, "it was like a penitentiary," but they both agreed that Carson had softened a great deal. Nevertheless, what was "softer" might still be considered excessively punitive by some standards. Carol had come to an uneasy agreement with his disciplinary style, saying that she had to admit that Cassandra was more "well-behaved" now than when she and Carson first began living together.

The family paradigm that was presented with a somewhat united front at the time of the study, was one that emphasized the importance of doing things by the rules, doing the right thing, and being "good." "Well-behaved" was one of the highest values. Listening to and obeying a parent is good; never talking back and never forgetting to do your chores is good; knowing the value of money is good. Cleanliness is very important, especially in personal hygiene. If you can do something by yourself it is better not to expect help from a parent.

In order to enforce these values, the parental



strategies were strong. The actual punishments may not have been physically abusive, but sometimes they were combined with fear-inducing threats. Carson explained that he sounded stricter than he really was:

There's times when she's absolutely doing everything she could possibly think of wrong and I have to come across real strong, and I can say, "Okay. You're in your room for six months. No TV; no nothing. You're gonna come out, you're gonna go to school, you're gonna come back, you're gonna sit in your room. No crayons, no nothing..." Yell and scream at the top of my lungs, "Get in the room!" Now I know I'm not going to go through with that, but I got her [Carol] totally convinced of it, too.... She'll [Cassandra] be in there the rest of today, and probably not tomorrow, but I wanted to say what I wanted to say, and I wanted her to know that I disapproved of everything.

When Carson stated his opinions so adamantly, Carol's voice became softer, sometimes sounding sad, and she intermittently interjected comments in Cassandra's defense:

You know, she's a pretty well-behaved kid. She really is. But I know that that comes from him bein' strict. But there are times when he is too strict....

Carson explained that sometimes he didn't allow room for disagreement.

She [Cassandra] had certain chores that she had to do and she'd get paid two dollars a week; and every time I had to remind her to do one I deducted money from her allowance. She [Carol] totally resented that, and I sat down and I told her my reasoning for doing it and I feel my reasoning is right, and I'll argue with anybody over it.... I didn't leave it open for debate with her.

When asked what Cassandra was told about the pregnancy and what to expect, Carol's first response was: "We've told

her that the attention was not going to be directly at her and she'll probably think that we'll be giving a lot of attention and stuff to the baby." They expected her to feel left out, but also expected that she would be "good with the baby."

In the prenatal child's interview, when Cassandra was asked what she would say to a friend who found out that her mother was pregnant, her answer reflected her parents' message:

Cassandra: Not to worry. I: Do you think she might be worried? C: She probably thinks it will get all the attention. I: What would you tell her about that? C: That it wouldn't get all the attention; she'll probably get some.

The parents' beliefs about sibling relationships were sometimes explicitly stated in the interviews. At other times, they were implicit in family interaction. Both Carson and Carol agreed that parents determine how sibling relationships turn out. For Carson, the most important determinant was that the parents not spoil the first child. If the first child was spoiled, there would be a greater likelihood of sibling jealousy. Carol believed that it was important that the parents not require the older child to look after the younger.

Postnatally, both parents seemed to act on an implicit set of beliefs about siblings: Parents need to protect the infant from being injured, soiled, or made uncomfortable by the older sibling. The way that siblings learn to handle an

infant is through a parent telling them the right way and then reminding them or correcting their handling of the infant. There are many things older siblings should not be allowed to do with the baby until the baby is older, because they are too risky.

In contrast to the Emersons, the Campbells did not view the pregnancy as an educational opportunity and specifically reported that they side-stepped dealing with how babies are made. Although Cassandra had seen the baby on ultrasound and had felt the baby move inside her mother, the child's answers seemed to indicate that these were not salient events for her. Her parents taught her the right way to hold a baby and she had been given a t-shirt that said, "I'm the big sister" (which she wore for several of the research videotapes).

Cassandra's prenatal ideas about babies were based on her experiences with several toddlers. Attributes of babies which she gave included: wet the bed, scratch, crawl, and cry when they are hungry, tired, or mad. She expected that she would help take care of the baby: She expected to rock the baby to sleep and feed it juice, but Carson would change the diapers.

The videotaped observation of Cassandra's first meeting of the baby at the hospital revealed several interaction patterns characteristic of this family. Soon after Cassandra arrived to see her mother and the baby, Carol

asked, "Who wants to hold her?" Cassandra instantly raised her hand and said, "Me." Carol looked at Carson and said, "Daddy?" There were several times during the visit when Cassandra would need to say something 3 or more times before she received a response.

The ignoring seemed to be an unintentional strategy, and Carol's intentional strategies seemed to be directed toward supporting Cassandra's contact with the baby. On several occasions during the hospital visit when Cassandra appeared hesitant to touch the baby, Carol said, "You can touch her. Don't be afraid." Later when Cassandra put her finger into the baby's hand and the baby grasped it, she said, "Mommy, she grabbed my finger!" Although she needed to say it more than once before she got a response, she did receive a supportive reply from her mother: "Oh, good. See. She knows who you are."

Nevertheless, unintentional strategies and parent communication were more often unsupportive of sibling-infant contact. When Cassandra held the baby for the first time, she was given numerous directions from the adults about how it should be done. When the baby was put in her lap, there were cautions from the adults: "Don't move." "Hold tight." "Sit still, now." Initially, Cassandra was looking at the baby face-to-face. However, as she responded to the adult directions and corrections, she became less and less aware of the baby in her lap. At one point when she looked down

at the baby, the parents were trying to take pictures and the mother called out to Cassandra, "Look at me again, Cassandra." [c.f. Anderberg, 1988] Later when she tried to give the newborn a bottle, she heard her mother say, "Don't put your fingers on it.... and don't squirt her." "I won't," she replied.

The parental communication patterns seen in the hospital were consistent with those observed in the home. Often Cassandra's comments went unheard or received no response. When a response came, it was frequently non-contingent. For example, after the baby's bath Cassandra asked, "Mommy, Can I hold her?" There was a pause, and then Carol said, "You know what we need? A shirt." The mother's non-contingent response can be better understood when one realizes that Carol felt uneasy about Cassandra holding the baby.

When Cassandra interacted with the baby, she received primarily cautionary and corrective comments. During the third postpartum visit, Cassandra was playing with Christina on the floor. She propped the baby between her legs so she wouldn't fall over and then played pattycake with her. Cassandra called to her mother, "Look, mommy, she's not even tipping." Carol responded, "Cassandra, be careful with her." Later, Cassandra propped up Christina in a corner on the floor, using a pillow for support. She gave the baby a fluffy stuffed bear. The baby grasped the bear and brought

it toward her face. Cassandra laughed, saying, "She's holding it." Carol responded, "The fuzz might get in her mouth." Cassandra didn't argue with these admonitions. She simply refocused her attention something else or became more quiet and self-absorbed in her play.

Although Cassandra asked for and reported wanting a greater caretaking role with Christina, Carol seemed to automatically limit that:

Every time she tried to help, I'd say, "That's okay, I'll do it." "It's easier for me to do it." And you know, I really didn't realize until after I was talking to Cassandra, saying, "There are ways you could help me with the baby, you know." She said, "Well I try, but you always say, 'I'll do it.'"

After hearing that feedback from Cassandra, Carol said she tried to be more responsive to Cassandra's desire to be allowed to do more with the baby; nevertheless, she knew that she still tended to put limits on what Cassandra could do. At 2 1/2 months, Cassandra was allowed to sit on the floor, with the baby next to her or in her lap, but was not allowed to walk while holding the baby. At 3 1/2 months, she was allowed to walk with the baby indoors, but not outdoors.

The videotaped family observations showed the parents primarily conversing with each other and frequently talking to the baby; but there was little parent-child discussion of things that interested Cassandra. She was often an observer of parent-parent or parent-infant interaction. Comments

that were directed toward her were often corrective, sometimes even derogatory or jokingly sarcastic. The parents seemed to respond to Cassandra and the baby in habitual ways, unaware of other possible options and also unaware of the consequences of their actions.

The videotapes provided evidence that Cassandra's interaction with the baby lacked most of the behavioral indicators of mutuality. Her responses to the infant were predominantly non-contingent; she seemed unaware of infant behavioral cues although she often tried to get the infant to perform for her in a certain way. The third postpartum videotape provided one exception in which Cassandra responded reciprocally to the infant. Carol and Carson were busy and Cassandra was playing with the infant uninterrupted for several minutes. She responded contingently several times to the infant's behavior, waiting for the baby to respond to her and noticing when the baby smiled. Also, during that visit, she placed the baby on her knees and said, "Say: 'This is my favorite seat. Yeah. It always makes me stop crying.'"

The interviews with Cassandra were unique in the study in several ways. She often spoke with an immature speech pattern and very often replied "Nothin'" or "I don't know" or gave short answers with limited information. Many of her answers, even prenatally, carried negative connotations. These patterns were consistent throughout the study. In the

fourth month interview Cassandra described the baby as being "a brat" and "faking it" when she cried, and she reported that the baby played with her mother and with Carson but not with her.

In a parent interview, Carol described a conversation which she and Carson overheard between Cassandra and a friend:

Carol: Something came up about being 'treated like a queen,' and Cassandra said, "Chrissie's the only one that gets treated like a queen around here." And we both just kind of looked at each other and went, "Oh, God!" (Carol laughed nervously.) Then Carson said (to Cassandra), "No that's not true. It's just that Chrissie's not old enough to get in trouble. I mean, you get yelled at because you do things wrong, and Chrissie doesn't do anything wrong yet; she isn't old enough."

As the study continued, Carol was increasingly aware of her own protectiveness and her prohibitions directed at the sibling-infant interaction. She acknowledge that Cassandra probably could do more than she was actually allowed to do and that she (Carol) tended to be more protective of the baby than she probably needed to be.

At the end of the study, the parents shared an idea which seemed to be a modification in the family paradigm: In order to foster the sibling relationship, parents should not restrict sibling contact.

Carson: I've seen some situations where it's "Don't play around the baby. Go play in your room." You know, just a constant separation between siblings and the newborn. I don't think that's right. They are just so afraid that the baby's going to be hurt, and the sibling just wants to be around it, or it's jealous, or whatever. And it's just, "Go away." I



don't think that's good. I think there's gotta be exposure between the siblings. Carol: Even when Chrissie was younger, we let Cassandra hold her, play with her, talk to her, and I think now we feel more comfortable 'cause Chrissie's older. It's easier for Cassandra to look after her. But there are times when I say, "Cassandra, leave the baby alone, go play," and then I feel bad.

There were other significant shifts in the family paradigm. Both parents reported being more aware of their own communication with Cassandra, openly sharing how they realized that they were ignoring her while talking constantly to the baby. When asked what advice they would give to another expectant family, they said, "Give more attention to the older child." Carson also came to understand his father role with a new insight:

Since Chrissie's come, I have a sense of what being a father is. I can honestly say, I know I haven't been that father to Cassandra. I can see where there is a big difference. I start to notice it more, especially if Cassandra is around when I'm talking to Chrissie and telling her how beautiful she is, and I never tell Cassandra how beautiful she is--but she really is. But it's just those things that I'm now realizing: "Hey, I wasn't really doing that with Cassandra." And I feel bad, after so many years of not doing it, it's very hard to start doing it. I realize now that I have to start treating her differently. I don't know how to, all of a sudden, come out of the role I've been playing and play a different role. It's really hard for me. I mean, she knows I love her, but I don't tell her. I want to, but yet, I don't say it to her.

There was also interactional evidence that the relationship between Cassandra and Carson had changed over the period of the study. The final videotape showed that his communications to Cassandra were less derogatory and she

acted less fearful around him. This family provided the best example of the reciprocal and circular nature of individual and family dynamics and development.

## CHAPTER 5

## THE FAMILY CONTEXT

One of the major theoretical assumptions underlying this study was that the sibling relationship is a family phenomenon, that the outcome of the sibling relationship is interdependent with other family dynamics and is shaped by conditions within the family. This assumption is consistent with the life-span developmental perspective discussed in Chapter 3. Seen through this larger theoretical perspective, siblings themselves are an integral part of the family context: that is to say, as the family is shaping the sibling relationship, the siblings are in turn, shaping the family. The direction of effect then is more circular than linear. One of the best examples of this circular process can be seen in the description of the Campbell family. At the end of the study, the parents described how having the newborn had altered how they saw their relationship with the older child and the strategies they would like to use in dealing with the sibling relationship.

Recognizing the circular nature and complexity of the relationship between context, values, and interaction, it is difficult to sort out how family processes occur. This chapter will attempt to discuss some of the family conditions that seem related to the interaction between school age siblings and newborns.

### The Family Paradigm

Early in the data collection it became apparent that each family in the study professed a certain set of beliefs and values concerning families and sibling relationships. The salience of this theoretical construct became more apparent following the prenatal home visit to the Emersons. This family's responses to the interview questions had been noticeably different from answers given by other families. Comparison of the visual and verbal data across families demonstrated that not only did each family have a unique set of beliefs and values, but also these beliefs and values were used by the parents to explain the strategies they were using to prepare the older children for the arrival of the baby. Each family was handling the arrival of the baby and the preparation of the older siblings from a different perspective, selecting and explaining their parental strategies in terms of their values and beliefs.

This constellation of beliefs and values was coded the family paradigm. The term paradigm implies a pattern of ideas, a larger world view on which decisions and behaviors are based (Kuhn, 1970) and which may change in the face of new discoveries and experiences. That is, a paradigm may help to guide action, but is, in turn, modified over time. The family paradigm as it is used here, is not an exhaustive representation of all family beliefs and values. For the

purpose of this theory, the family paradigm includes those ideas and values which seem most relevant to the development of the sibling relationship. It includes the family's views about how family relationships are or should be, how sibling relationships look, and what determines sibling outcomes. The paradigm can be characterized by a theme which reflects the family's values, and it is used by parents to explain their strategies with the children.

In this research, family paradigms were manifested in both the verbal and visual data. In the interviews, parents explained the actions they were taking based on their beliefs and values concerning siblings and families. Evidence of a family paradigm was seen in the ways parents prefaced their explanations with statements such as "This is the way we see it..." "I just don't buy the view that..." "That is the way it should be..." or "You know what they say...." In the videotapes, evidence of a family's perspective could be observed in the interaction among all family members, in parental communications to the older child about the baby, and in the strategies parents used to handle daily family situations.

### Themes

During discussions with parents, groups of words or ideas recurred creating a palate of family values or family theme. For instance, the recurring words in the Armstrong family were "independence" and "self-esteem." Values such

as individual success and competency colored the entire family paradigm. The mechanisms by which these values influenced the siblings are not fully explained in this study; yet, the family theme was echoed in the meanings the baby's arrival had for Adam (see examples presented in Chapter 4) and also seemed to fit the parallel but independent sibling interaction on the videotapes.

Family themes stand out in relief when compared across families. In contrast to the Armstrongs, the Emerson's values would be characterized as communal. They often used words such as "connected" or "together" and spoke of family structure in collective terms: "a good trio of kids," and "we really are a family unit, now."

In the Campbell family the recurring theme emphasized the importance of having children who were "well-behaved," "obeying the rules," and "doing things right." Their expressed emphasis was on bringing up children by certain standards of behavior and raising children so they do not transgress those rules. This family theme was further elaborated by the parents as the interview focused on issues of punishment and reward, and teaching the right way to do things.

### Beliefs

Family themes and beliefs are not separate realities, of course. Themes are identified in family descriptions of

values and beliefs. There are many ways that one can categorize family beliefs. For the explication of this theory, certain categories of beliefs have been selected for discussion because they appear to be most closely related to the sibling relationship. These include beliefs about:

Sibling outcome: Who or what determines how sibling relationships turn out?

Responsibility for the baby: Who is responsible for meeting the infant's needs? Is responsibility for the infant shared among all family members or are parents the sole decision-makers on issues concerning the baby?

Sibling conflict or sibling rivalry: Is sibling rivalry the norm? What fosters or reduces sibling conflict?

Infant capabilities: Is the infant an active or passive participant in interaction? With what capabilities is an infant born?

Parental strategies toward the siblings appear to be related to how these categories of beliefs are put together by the families. In addition, family beliefs seem to have consequences for parents as well as siblings. For example, a set of beliefs which emphasizes parental responsibility and infant helplessness and minimizes sharing responsibility for the infant with the children, may require more effort or

work on the part of the parents.

The Armstrongs provide an example of such a set of beliefs. Their family paradigm emphasized parental responsibility and de-emphasized sibling and infant contributions to the sibling relationship. They described babies as basically passive recipients of care rather than active contributors to their own experience. In addition, they did not expect 5 year old Adam to share responsibility for meeting the newborn's needs.

Their parental strategies seemed to be based on the belief that parents are responsible for what happens in a family, including sibling relationships, and that if certain actions were not taken by the parents, sibling competition might result. Their family paradigm emphasized the need for parents to set up situations in order to reduce sibling competition. The case discussion in Chapter 4 provides several examples of these parental strategies.

These beliefs seemed to have consequences for Alex and Ann as well as for the sibling relationship. Parental responsibilities increased geometrically when the baby arrived. Ann was exhausted trying to meet the needs of each child; and even with both parents actively sharing the workload, they both were constantly on the move while the children were awake. Adam was not involved with the the baby--except to go get items for his parents when their hands were full.



Alex and Ann acknowledged that they were active and interventionist in parenting style, and they also understood that that placed enormous demands on them as parents. They thought that they might need to relinquish some of that responsibility in order to survive the workload, but during the period of the study, they had not been able to make that change.

It is possible that part of the overwhelming sense of parental responsibility may be related to the ages and capabilities of the children. To some extent, children's ages are inversely related to parental levels of intervention. Nevertheless, even if one takes this factor into consideration, the Armstrongs' family paradigm is on the high interventionist end of the spectrum. It would be valuable to observe this family in a year or two to see whether changes in the developmental capabilities of the children have altered the parents' beliefs about sharing responsibility for the infant and whether that has altered their active parenting style.

In the Emerson family, Eve also felt the inevitable increase in work load after the baby arrived; however, she believed that children 'raise themselves' to some extent, and that siblings help raise the younger children. Her non-interventionist parenting style also provided more opportunities for the older children to share responsibility for the baby. In the videotape of the baby's bath at 6

weeks, 6 year old Elliot was the one who completely undressed the baby for his bath and carried him naked from one room to another. Allowing Elliot to handle the baby without interference was also congruent with the Emersons' view of how children learn to get along with each other. In the matter of sibling conflict, children were seen as capable of or responsible for resolving their own conflicts, to some extent, and this required less parental intervention.

As mentioned above, the degree to which parents include the children in taking responsibility for infant care may also be a function of age and ability and sibling interest. However, in this study, some of the youngest children were very involved and some of the older ones were least involved; and the most salient factor seemed to be the parents' belief about how much of the responsibility for the baby should or could be shared with the children, and the strategies they used to implement those beliefs.

An example of a philosophy of shared responsibility is provided by another family in the study. Don and Diane Dunlap included the older children in the preparations and decision-making for the baby even before the baby arrived. They made sure that their two children, 9 year old Deborah and 8 year old Derek, were the first to be told about the pregnancy, before any other relatives or friends. Deborah helped pick out the car seat and helped set up the crib. In

these and other ways the children were considered to be part of the family team preparing for the baby's arrival.

This family's view of infant capabilities was also very different from the Armstrongs. After the infant's arrival, Diane included the children in identifying the baby's developing capabilities and all family members eagerly watched for and responded to the cues and behaviors of the baby.

The Dunlaps purposefully, albeit somewhat cautiously, shared responsibility for infant care with the older siblings until, at the end of the study, the children were doing brief periods of babysitting. In the parent interview, Don and Diane explained the issue of responsibility this way:

Diane: They don't identify with the baby. They don't see themselves as "our three children." They're grown. This is our baby ["our" meaning: father, mother, and two older children]. Don: That's right. It's an older set, all four of us, and then the baby. Interviewer: I see. It's the four of you having this baby; it's not: "Here are the parents and here are the three children." Diane: Exactly. They're not considering themselves as peers [with the baby].

The Dunlaps believed in shared responsibility for the infant and saw the infant as an active participant in the family. These family beliefs were used to explain the active involvement of the older children in comforting and caring for the baby. It is possible that these beliefs and strategies may help to explain the affective meaning the

baby had for the children, their high level of participation in caretaking and playing, and the numerous behavioral manifestations of mutuality between the older children and the baby. (The drawings found in Appendix C are primarily from the children in the Dunlap family.)

These examples suggest that beliefs about shared responsibility, about passive or active infant capabilities, and about sibling relationships may provide the conditions for the strategies that parents use to influence the outcome of the sibling relationship.

#### Context for Family Paradigm

Family beliefs and values are embedded in a historical and cultural context which includes past experiences of the parents in their own family of origin and other previous experience, such as education and employment, as well as cultural messages about siblings and families. In addition to these historical and cultural conditions, there are current conditions in families that seem to influence parental communication style and parental strategies, conditions such as temporary family illness or job changes. (These temporary conditions will be discussed at the end of this chapter.)

Family of origin. Experiences in one's family of origin also are related to both the *beliefs* one has about siblings and also the strategies used to influence the sibling relationship. These family-of-origin experiences

seem to have their primary effect on unintentional parenting strategies, and sometimes they may conflict with consciously held beliefs. The Campbell family provides an example of this kind of discrepancy.

In the Campbell family, the strength and persistence of the parents' experiences in their families of origin can be identified. Carol and Carson expressed a desire to have their two children be "close" as siblings. Although Carson was able to recognize his own father's abusive behavior as undesirable, his own parenting style seemed to reflect his early experiences. The similarities between his experience in his family of origin and his current beliefs were evident in his "right versus wrong" view of the world and in the kinds of disciplinary strategies he used with Cassandra. This belief system was used by Carson to explain the parental strategies of strongly correcting Cassandra's behavior.

Carol's experiences from her family of origin sometimes seemed to override her own beliefs and intentions. For example, Carol reported prenatally that as an older sister in her own family, she was usually expected to look out for her younger siblings and this was something she vowed to avoid with her own daughter. In spite of her belief that older sisters shouldn't be saddled with responsibility for younger siblings, she and Carson were praising Cassandra at four months postpartum for her role as surrogate parent when

they were busy. In one instance when Cassandra protested mildly, Carol reported that she told Cassandra to watch the baby "just for a little while longer." (This is not the same as taking the younger sister along everywhere, but the value is similar. One cannot know the actual outcome on this issue until the infant is much older.)

Not all experiences from one's family of origin are in conflict with current family beliefs. Some, like the value of family togetherness that Eve Emerson remembered, are consciously included in the family paradigm.

Other previous experience. Other forms of prior experience also seem to be related to parental strategies. Perhaps the most obvious example of this was found in the Armstrong family in which their education and prior employment experience with children were reflected in their parental strategies. Both Alex and Ann had majored in education and both had taught various levels of grammar school. Watching the videotapes of their family interaction was like watching an extension of a child development demonstration film. Both parents used every opportunity for teaching and answered children's questions with rich explanations geared to the child's developmental level. They provided an enriched, creative environment for the children and often read books and told stories and included the children in family work projects and trips. Conflict

between the children was handled swiftly, with a sense of fairness, without hesitation in assuming adult authority for decision-making. Both parents were expertly able to stay in control of numerous simultaneous activities.

Alex explained that he used to be non-interventionist in philosophy and style until he began teaching. He explained that in the classroom, if one doesn't take an interventionist approach one loses control of the class! The Armstrong parents demonstrated how prior experience influenced both their family values and their parenting strategies. One of the questions raised by this study is, How are these prior experiences and current strategies related to actual sibling interaction? The high level of vertical communication seen in this family and the relatively less frequent horizontal communication between siblings, is similar to the communication patterns often seen and praised in classrooms. However, it is not clear just exactly how these strategies result in specific kinds of sibling interaction.

Cultural beliefs and messages. In several of the prenatal interviews, parents referred to certain cultural assumptions about sibling rivalry as the "norm." These cultural assumptions were mentioned by parents, sometimes in agreement and sometimes in disagreement; but there was an implicit acknowledgement of the existence of this cultural point of view: a popularized "Freudian" perspective. These

cultural messages are embedded in our culture and can be seen every day in popular media: books, magazines, television talk shows.

Alex and Ann frequently referred to this cultural view of sibling rivalry. They even used the well-worn comparison that bringing home a new baby to a sibling is like a husband bringing home a mistress to his wife. Most of the strategies which the Armstrongs were using were based on this dominant view in child psychology and were strategies commonly recommended by experts. In the prenatal parent interview, Ann was discussing the early toilet training, the arrangements for preschool, and the changes in sleeping arrangements. She said: "You know what they say, you're supposed to do all those things ahead of time." "They" are the numerous experts who recommend strategies designed to avoid sibling rivalry. Also during the prenatal interview, Alex and Ann very casually mentioned that "of course," when they brought the baby home from the hospital, Alex would carry the baby into the house. That would allow Ann to give her full attention to Adam and Andy so they would not feel that the baby was replacing them. The assumption based on the cultural view is that the older child primarily will want contact with the mother and that having her carrying the baby would be construed by the child as competition.

Sometimes parents consciously disagree with the view that sibling rivalry is the norm. In the case discussion of



the Emerson family, Eve referred to the cultural view about sibling rivalry when she explained how her beliefs were different. "I don't buy that sibling conflict is the norm."

Whether or not parents agree with the cultural view, they know the cultural message: Sibling relationships are based on rivalry and the parents will have to do something (perhaps many things) specifically to prevent it. Even when the cultural view was not explicitly discussed there were implicit assumptions about the cultural view in every family. Whether parents agreed or disagreed with this cultural perspective, it was used as the standard, as the measuring stick, for their own values and strategies regarding siblings.

#### Parental Strategies and Communication

The term strategy implies that the action is directed toward that which it affects. However, intentional strategies are only one of several kinds of parental action which have an impact on the sibling relationship. In this theory, intentional strategies are those actions which are implemented for the purpose of influencing the sibling relationship in a certain direction. Unintentional strategies are actions which may be carried out for other reasons but which have consequences for the sibling relationship as well. Parents are frequently unaware of the consequences at the time.

The impact of the family paradigm is mediated by a third kind of parental action: parental communication style, the way that the parents communicate with the older child generally as well as how they deal with sibling-infant interaction. Parental actions--whether intentional or unintentional strategies or communication style--can be directed toward the older child, toward the infant, or toward the interaction between the children.

#### Intentional Strategies

Even before the infant is born, parents employ certain strategies directed toward the older sibling, with the intent of influencing the future outcome of the sibling relationship. Parents may include school age children in decision-making about the infant's room, encourage a child to listen to the baby's heart beat or to feel the mother's abdomen when the baby moves, invite a child to share in the baby shower, and allow children to participate in the birth of their new infant sibling. These are some of the intentional strategies that are seen in families where the paradigm emphasizes shared responsibility for the infant and involvement of the older child in the infant's arrival in the family.

The strategies used by the Armstrongs to avoid sibling competition are also examples of intentional strategies. The videotapes indicated that these strategies may have been a condition for reducing sibling contact as well as sibling

confrontation.

However, intentional strategies may not have the desired effect. In another family, Gloria Gordon devised numerous intentional strategies to increase 6 year old Gregory's contact with the baby. The videotapes were full of her deliberate efforts to get Gregory to have contact with his infant sister, Gretchen. When Gregory was watching television and Gloria was nursing the baby, she frequently interrupted his television program by suggesting that he go get something for the baby: a diaper, a book to share, a comb, a stuffed animal for the baby to look at. (e.g., "Why don't you go get that stuffed animal that goes with the book you read to her?") When Gregory obeyed his mother's 'suggestions' to go get something, he often didn't respond in the particular way she wanted him to respond. He usually carried out her wishes with a behavioral explosiveness that seemed to defy his mother's attempts to control him.

Over the four months postpartum, the videotapes indicated that the mother was initiating all of these contacts. Gregory rarely initiated contact with the baby. When he did do something for the baby, his mother would always comment with approval or disapproval, telling him how nicely he had done it, telling him how she would have preferred having it done, or asking him how he thought it should have been done. He responded by ignoring the baby or doing the opposite of what was asked of him.

Rather than having the effect of facilitating his relationship with the baby, her strategies seemed to actually reduce the child's involvement with the baby. Although Gregory demonstrated prenatal indicators of forming a bond with the baby, after the baby arrived, his interaction with the baby during the videotaped observations demonstrated decreasing evidence of mutuality and an increasingly non-contingent interactive style with the baby.

#### Unintentional Strategies

Some parental actions are carried out for other reasons but may have consequences for the sibling relationship as well. These strategies were coded, unintentional strategies. The parents may not see them as strategies having to do with the older child and they frequently are unaware of the consequences of these strategies. For example, a decision regarding sleeping arrangements for the baby may be made for reasons that are unrelated to the older child (parent convenience, location of the baby's paraphernalia, and so forth). However, decisions about where the infant sleeps have consequences for the amount of spontaneous sibling-infant contact that occurs. Where the baby sleeps also seems to have special meaning for some children. Many children in the study expressed a desire for the baby to sleep in their own room "so I can play with her when I wake up" or "so I won't be lonely in my room." Most

parents had the baby sleeping with them for several months, and then transferred the baby to a room of it's own.

During the time of the study, only one family allowed the baby to sleep on a regular basis in the same room with the older child. Diane and Don Dunlap expected the baby to cry a lot in the middle of the night so it never occurred to them to suggest that the baby sleep with either child. Also, both parents were sure that 8 year old Derek would prefer sleeping in his own room on the other side of the house. However, after the baby arrived, Derek asked if he could sleep in the baby's room and the parents realized that he might be a little afraid to be in a room by himself. At one month Derek and the baby were sleeping in the same room and this continued through the remainder of the study. The sleeping arrangements were not done as intentional strategies for influencing the sibling relationship, but there may have been unintentional consequences for the sibling-infant relationship anyway. Being in the same room as the baby not only helped him feel closer to the rest of the family at night but also provided more opportunities for Derek to interact with the baby. In his interviews, he described a very affectively positive and mutual connection to the infant.

Many of the children in this study voiced a desire to have more contact with the baby and more responsibility for its care than they were allowed. Those who were allowed

frequent opportunities to interact spontaneously with the baby were also the children who were more likely to demonstrate sibling mutuality.

Another example of unintentional strategies having an indirect effect on the sibling relationship can be seen in the case discussion of the Campbell family. After the baby was born, Cassandra frequently asked to be allowed to help in the care of the baby. However, in order to save time and get the infant care done the way she thought it should be done, Carol would usually say, "It's easier if I do it myself." At two and a half months postpartum Carol described a conversation with Cassandra in which the child pointed out to her mother that she wanted to help with the baby but was prevented from doing so by her mother's automatic response (see Chapter 4).

Carol's strategies had been directed toward a different goal, that of efficiency, speed, getting it done right; but her approach seemed to have unintentional consequences for Cassandra's feelings about her role as a sister and for her relationship with the baby. By limiting Cassandra's involvement with the infant, Carol was decreasing the child's opportunities for uninterrupted, uncensored time with the infant. Children in this study who had fewer opportunities for spontaneous interaction with the infant tended not to demonstrate behaviors associated with mutuality.

Decisions about whether and how much a parent works outside of the home may also have indirect consequences for the sibling relationship by altering parental strategies which govern the contact the sibling has with the infant. Job changes and other stresses will be discussed at the end of this chapter as "temporary" family conditions that impact the sibling relationship.

#### Parental Communication Patterns

Early in the analysis, it was hypothesized that the differences in sibling interaction might simply be traced to the beliefs and values on which parents base their intentional strategies. However, another explanation was discovered through analysis of videotaped family interaction. The data revealed that parental communication style, the way that parents communicate on a day-to-day basis with the older child, may be a very important condition for sibling relationship outcomes.

In families where sibling mutuality was most visible, the parents interacted with the older children with that same kind of mutuality. They responded contingently to the child's questions, concerns and interests. In the course of family interaction, parents conversed with the older children on topics of interest to the children. Children's lives were part of the family conversation. Those parents communicated in a way that seemed to respect the child as a

person of value with needs and interests that were unique. That is to say, the child already had an experience of being the recipient of or the participant in a relationship of mutuality.

On the other hand, in families where the school age children were having trouble establishing a mutual relationship with the infant, the parents did not demonstrate mutuality in their interactions with their older child. They frequently either ignored children's questions or comments or responded in a non-contingent way. The primary communication style was one of corrective comments and directives. Furthermore, these parents also tended to limit opportunities for spontaneous, uncensored sibling-infant interaction and often responded to sibling infant interaction with criticism or in other ways that reduced the behaviors associated with sibling mutuality.

The findings suggest that the experience of mutuality between parents and the older child is a condition which is directly related to the development of mutuality between the school age sibling and the infant. When a child is not experiencing that kind of mutuality in a relationship, it appears that a direct consequence may be that the sibling is less able to establish a relationship of mutuality with the baby. Furthermore, even if parents profess to value sibling closeness, when their parental communication style with the older child lacks mutuality, respect, and empathy, that



communication style appears to override the expressed family value, and the school age sibling is still less likely to establish a mutual relationship with the baby. The findings suggest that the older child needs the personal experience of being treated as a person, the embodied experience of mutuality in a relationship for himself, in order to create that with the infant.

The videotapes of family interaction provided a valuable opportunity to observe parent communication as it related to sibling interaction. The parental communication patterns that will be discussed here are those which appear to be directly related to the sibling relationship: communication directed toward the older child, communication directed toward affecting the sibling relationship, and communication in response to sibling-infant interaction. Such communications are sometimes consciously based on the family paradigm and at other times they are spontaneous and without forethought.

In order to more specifically analyze the differences in parental communication within and across families, specific categories of parental communication patterns were identified in the data. These communication patterns have been divided into five different categories. Each category will be defined and then the consequences for the sibling relationship will be summarized. The five categories of parental communication patterns are:

- a) ignoring and responding non-contingently;
- b) correcting and cautioning;
- c) actively soliciting sibling-infant contact;
- d) relaxed including and responding contingently; and
- e) allowing.

Ignoring and responding non-contingently. Ignoring as a parental communication strategy is often unintentional, in that a child may ask a question several times before a parent hears the question and responds. For some families, however, this is a predominant communication pattern and the parents seem to "tune out" the child's voice in everyday family interaction. Non-contingent replies are included in this category, since some non-contingent replies involve ignoring or not listening to the child's message. Other non-contingent responses are used by parents in order to avoid responding directly to the child's communication.

The case discussion of the Campbell family provided several examples of this category of communication, both ignoring (as in the hospital observation) and non-contingent replying (as in the bath).

Correcting and cautioning. When a child is interacting with the baby, a parent may correct what the child is doing by telling them what they are doing wrong or by telling them what they should be doing instead, or the parent may caution the child not to do something else. These corrective or

cautionary comments have been grouped together since they tend to appear in conjunction with each other in families. These communication patterns are also grouped together because they involve judging the sibling's behavior by some standard of what "should" be.

There are times when praise can also be given in a way that seems judgmental: "Thank you for not walking on the baby's blanket, Gregory." These statements are "compliments" perhaps, but they have a quality of control or judgement about them.

Correcting sibling-infant interaction also is related to parenting styles that restrict sibling contact or circumscribe the limits of sibling-infant interaction. (Kreppner [personal communication] found that there were some parents whose strategies seemed to be aimed at keeping the children separate. The long range consequences were greater sibling conflict or delayed development of the sibling dyad in the family tetrad.)

Active soliciting. There are wide variations in the ways parents encourage sibling contact with the baby. Some parents seem to work, almost anxiously, to think of ways to include the child. They invite the child to have contact with the baby and then follow the invitation with urging and supporting arguments. This form of communication has been coded, active soliciting. Done in moderation, active soliciting can be effective in fostering positive

interaction between the older child and the infant. It can also be a message of trust in the child's ability to handle the infant's needs at the time.

Some parents use active soliciting with the child in the same way they do with each other: "Felix, go see why Freddie is crying." That kind of message communicates that the well-being of the infant is a shared responsibility, that the infant has specific needs and all family members take turns meeting those needs. If the active solicitation is followed by genuine trust of the child to handle the situation, this strategy has a facilitating effect on sibling interaction and teaches the older child that he is able to help out with the baby effectively. Felix described himself as particularly capable at calming and entertaining his infant brother, and often initiated infant care activities on his own.

If, however, the active solicitation is followed by censorship or corrective comments, the active solicitation may have the opposite effect. This was the pattern that became apparent in the Gordon family. When Gregory responded to the requests to get a toy for the baby and was then told that doing the task in a different way would have been better, he responded with disinterest in the task and in the baby. Instead of demonstrating trust in the child's ability to care for the infant successfully, the active solicitation followed by corrections had the consequence of

reducing sibling-infant interaction.

Relaxed including and responding contingently. In some families, the active encouragement of sibling involvement takes on a more relaxed, facilitating style, and if the child does not respond as the parent expects, nothing is said. This category of parent communication has been coded, relaxed facilitating. A child may be invited to hold the baby or undress or feed the baby, but if the child says "no" he is not pushed to do so. Parents who use this strategy may consciously look for opportunities to foster the older child's sense of mastery or feelings of being included, but any response from the child is acceptable, even a refusal. Their response to the child's reply is one that respects the child's right to decide for himself--it respects the child as a person with his or her own feelings. In response to relaxed facilitating, children seem to chose their own time to say "yes" when they feel ready. Children whose parents predominantly use this category of communication were the children who most consistently demonstrated affectively positive and mutual relationships with the infant.

Allowing. Some parents may not actively solicit involvement with the baby but may simply respond permissively when the child initiates contact. These parents tend to allow more spontaneous, uninterrupted sibling-infant interaction and may or may not comment on the

interaction. This parental style can be characterized as allowing. These parents allow sibling initiated interaction and also allow the children to have their own relationship, unstructured or unchoreographed by them as parents.

This quality of allowing is reminiscent of the concept of "benign neglect" in that parental constraint for either positive or negative feedback is minimal. The data indicate that this parental style allows a naturally emerging mutuality to develop between the school age child and the infant. These children get to experience the infant's response to them without parental intervention.

There are some parents who make no attempts to either encourage or discourage sibling contact with the baby, neither preventing it nor trying to make it happen. This parental style also is included in "allowing" and is primarily defined by what it does not include: it does not include correcting or praising; it does not include active solicitation of sibling involvement with the baby; it does not include restricting or circumscribing sibling-infant contact. If contact occurs between the sibling and the infant, attention is not focused on that. However, if a child does not initiate contact on her own, this parental approach does nothing to push the relationship.

The actual communication styles of parents do not fit into any single category. Parental communication patterns are usually combinations of two or three of the categories

identified above. The children in the families who used ignoring, correcting, and active facilitating/correcting, were ones that were least likely to demonstrate the behavioral dimensions of sibling mutuality during the months of this study. Those children who demonstrated the clearest examples of sibling mutuality were those who experienced some active facilitating, more relaxed including, and plenty of allowing.

#### Temporary Family Conditions

As the integrative diagram for the theory suggests, parental strategies and communication are set in a context of previous experiences. The data also provided some interesting evidence suggesting that temporary family stresses influence parental communication patterns. The Bryant family provides an excellent example.

Bill and Barbara Bryant were having their fifth baby. They had three living children and had lost another infant in a neonatal death. The living children included Betsy who was 8 years old, Brian who was 6, and Bertie who was 2 years old. Their family paradigm focused strongly on traditional parent roles: having large families and having mothers stay home with their children.

The children began their contact with the infant by demonstrating many of the indicators of mutuality. However, by the first month, current conditions in the family had

altered the family context in ways that seemed to reduce rather than foster sibling mutuality. Following the birth of Belinda, the mother became noticeably depressed. There were several factors that might possibly have contributed to the depression: The overwhelming demands of four children and the difficulty in coping with the constant chaos of the household environment may have contributed to her feeling overwhelmed. Also, Barbara reported that with at least one previous pregnancy, she had experienced severe postpartum depression.

The threat of illness also seemed to add to the stress experienced by this family. Barbara, who planned to have more children in the future, was informed that she had an abnormal pap smear. She had a family history of DES and many of her female relatives had already had hysterectomies. The thought of having her childbearing ability threatened was a serious stress. The abnormal pap smear also raised fears of dying with cancer, since Bill's father had died of colon cancer the previous year. Finally, in order to bring more money into the family Barbara had decided to go to work, and by the fourth month postpartum she was working full time, primarily evenings and weekends.

The father carried an ever increasing share of the childcare and household responsibilities as the mother became more depressed. His communication with the children was sometimes very nurturing and sometimes strangely



non-contingent but his style seemed to remain consistent through the study. However, the videotapes revealed a significant change in the mother's communication pattern. She clearly had the capability to be nurturing, and when she was alone with one child or two at a time, she was warm and contingent in her interactions. However, when there were three or four children present, she sometimes appeared withdrawn, passive, and immobilized. She sometimes seemed to be making an effort to reduce the stimulation around her.

The consequences of these family stresses and changes for the sibling relationship became more apparent. Barbara's communication style was increasingly characterized by ignoring, prohibiting and correcting the children. As she limited the older children's spontaneous interaction with the baby and as she tuned-out the children's constant requests for her attention, the children began to stay out of the way and the videotapes demonstrated less involvement of the older children with the baby. Affection for the baby was expressed verbally occasionally in the interviews, but rarely seen on the videotapes.

Most of these stresses were temporary. The pap smear became normal; she consulted her obstetrician about the depression; and later, after the fourth month of the study had passed, she stopped her job. However, during the period of the study, the stresses were present, and a return to previous family interaction was never observed.

The revelation that stress seems to influence family interaction is not a surprising finding; we know that stress has an impact on family relationships and coping. However, it was especially valuable to have the videotaped data to indicate specifically how these stresses influenced the parental communication specifically as it related to sibling-infant interaction.

#### Chapter Summary

Conditions for the developing sibling relationship are found in the family context. This context includes family beliefs and values, the family's view of the world, called the family paradigm. The family paradigm is itself embedded in a context of prior experiences, cultural messages about siblings and families and current stresses. Parents use these beliefs and values to explain their strategies with the children. These family conditions appear to influence the intentional and unintentional parent strategies and communication patterns in relationship to the older child and to the sibling-infant dyad.

Five categories of parental communication have been identified which seem to alter sibling-infant interaction and the development of sibling mutuality. These categories include ignoring and responding non-contingently, correcting or censoring, actively soliciting sibling-infant contact, relaxed facilitating of sibling-infant contact, and

allowing.

There is evidence in this study that sibling intimacy cannot be forced or orchestrated. Sibling mutuality seems to occur when the child has been the recipient of a mutual relationship. A parental style of communication which is primarily allowing and contingent tends to facilitate mutuality. Opportunities to interact with the infant without criticism or censorship also tend to support mutuality. Other parental strategies (specifically ignoring or responding non-contingently, and correcting or censoring), especially when they are directed toward the older child or toward limiting spontaneous sibling-infant interaction, seem to reduce sibling mutuality.

## CHAPTER 6

## SIBLING MUTUALITY

When this study began, there was no preselected theoretical model of how the relationship between a school age child and an infant might appear. In fact, the researcher made a conscious effort to avoid analyzing the data through other conceptual frameworks which have described relationships with infants (for example, Reva Rubin's sequencing of maternal behavior (1963) or Marshall Klaus's maternal-infant bonding behaviors (Klaus & Kennell, 1976). It was assumed that if similarities existed between those frameworks and the theory derived from the data in this study, the similarities would become apparent during the analytic process.

The observational data revealed that some children interacted with the baby in a way that was remarkably "in-tune" with the infant. These children were especially sensitive in reading infant cues and responding contingently and empathically to the infant. Their interactions with the infant were characterized by reciprocity as well as intimacy.

One of the paradigm examples of this quality of sibling interaction appeared in the videotape of 6 year old Elliot and his 6 week old brother, Eric, before, during, and after a baby bath. The mother's response to his involvement was one of allowing and relaxed facilitating.

While Eve prepared the water for the tub, Elliot held Eric and walked around with the baby in his arms. He came into the kitchen and announced: "Baby's ready for his bath." "No he's not," said 4 year old Ernie. "He doesn't have his clothes off." "Well, then we'll take 'em off," said Elliot. Eve said, "You can go put him on the bed and take his clothes off." "Okay."

Elliot carried Eric to the double bed in the next room and laid him gently on the bed. He stood at the side of the bed to undress the baby. As he did so, he talked softly to Eric as a person who could understand. The infant was quiet. Elliot climbed onto the bed to finish removing the baby's jumpsuit. He lifted the baby upright, grasping firmly under the infant's arms. There was a slight head lag, but Elliot's movements were smooth and the infant remained unperturbed. Elliot sat Eric on his lap and looked into his eyes. Then he laid him down again. "Let's take off your pants." He removed the cloth diaper. "You peed."

Elliot lifted the completely naked baby upright, in line with his own body, and sat the baby on his knee with his own face right in front of the baby's face. Very lightly, he bounced Eric on his knee, chuckling and singing softly to him. Eve came in the room. "How's Teeny Super Guy doing?" She did not intervene in any way. She did not attempt to interact with the baby nor did she act as if the baby should be handed over to her. Instead, she reached around the two of them, pick up the jumpsuit and diaper, and disposed of the dirty clothes.

Elliot put Eric over his shoulder and carried him into the kitchen. Eve followed him in. When they reached the kitchen table where the tub was, Eve lifted the baby from Elliot's arms and gradually laid him in the tub. Elliot climbed onto the kitchen table to be closer to the baby. Eric began to whimper. Elliot said, in a high pitched voice, "Is it too hot?" In order to get even closer to the baby, he leaned his forearm on the table until his face was in line with the baby's. Eve held the baby in a semi-reclining position in the tub while the children lifted water onto his belly and touched the baby. Elliot sang softly to the baby, while Ernie sang boisterously, "Splish splash, I was takin' a bath." At one point, Elliot watched the baby's face continuously for a full 30 seconds.

Suddenly the baby turned to the side, getting his face in the water. Eve said, "Whoops. He just put his own face in the water." Elliot looked at Eric with a concerned look, and asked, "Did that go up your nose?" Then he brought his face down to the baby's face and asked, "Are you okay?" (pause) "Yeah, now I am a little bit," Elliot replied for the baby in a high pitched voice. Elliot sat up and then leaned forward again, so that the baby's hand reached out and touched his face, but Eve had decided to lift the baby up and said, "No, Elliot, not that, now; I want to see how he's doing." She sat the baby upright, and all of the children touched the baby's hair and commented on his "duck tail" hair style. Elliot brought his face close to the baby again, and noticing that Eric appeared uncomfortable, he spoke for the baby again: "Do I have to burp? I don't know. Maybe I have to burp through my nose."

As Eve prepared to end the bath by putting a towel over her shoulder, Elliot was shaping the back of Eric's hair saying, "I'm making him have a mohawk in the back." Eve waited for him to finish playing with the baby's hair, and then she lifted Eric onto her shoulder. As she lifted Eric out of the tub, Elliot put his hand out to support the baby's buttocks.

Eve brought the baby to his crib where she could more easily dry him and dress him. As she laid the baby in the crib, Elliot began to climb in, too. "Are you gonna get in with him?" "Yeah," said Elliot. Eve said, "Okay."

When this videotaped observation was compared to other examples of sibling-infant interaction, what stood out was the level of sensitivity and reciprocity in the sibling-infant interactions. Analysis of the children's interviews also provided similar evidence of mutuality. Most children tended to give generic and concrete answers about babies ("They're cute." "They cry." "It's fun to hold them"). However, there were some children who also were able to explain how their own behavior influenced the infant and vice versa.

The qualitative difference in both the interviews and the videotapes seemed to be the degree of reciprocity and intimacy in the sibling-infant interaction. The essence of this phenomenon was gradually encompassed in the core concept: sibling mutuality. This term was chosen because it represented both the reciprocal and the personal dimensions of the relationship.

#### Behavioral Dimensions of Sibling Mutuality

Eight different behavioral dimensions of sibling mutuality were identified in the data:

1. Maintaining intimate distance: Reaching out and moving in; attempting to engage the infant. Establishing contact and maintaining intimate distance.
2. Identifying infant behaviors: Identifying infant capabilities and reading infant cues.
3. Ascribing feelings and intent: Speaking for the infant and/or stating the infant's thoughts or wishes.
4. Empathizing: Sharing in the infant's emotions or expressing concern or caring for infant's feelings.
5. Embodied awareness in handling: Handling the infant with an intuitive awareness of how the baby might feel when handled in that way.
6. Affective associating: Expressing affection, pleasure, and/or pride in association with the baby.
7. Personification: Treating the infant as a separate person, with needs different from one's own.

8. Reciprocal, synchronous interaction: Recognizing the bi-directionality of interaction and responding contingently to infant cues.

Some of these dimensions tend to appear early in the relationship and some dimensions build on others or imply the existence of other dimensions. However, the findings do not support a fixed sequential order of occurrence. To try to place them in a step-wise linear order would be forcing the data. The following discussion describes the eight dimensions, with examples provided from the family data. The discussion will begin with the simpler dimensions, and then will proceed to the more complex dimensions, with the understanding that these do not imply a trajectory or stage-like process.

#### Maintaining Intimate Distance

Children demonstrate behaviors of reaching out and moving in, particularly when they see the infant for the first time. Videotaped observations of children meeting the infant in the hospital provided excellent examples of this dimension: watching the baby's face intently, establishing and maintaining eye-to-eye contact, reaching out to touch the baby, bringing one's face close to the infant's, and moving one's body or head in a way that keeps the baby within intimate distance. At the initial meeting, these behaviors seem to be gestures or attempts to get acquainted, to engage the infant's attention, and/or to elicit the



infant's response.

These initial reaching out behaviors are especially vulnerable to external constraints, and the responses from adults in the moment strongly influence whether or not the child continues to reach out and move in. For example, when eight year old Derek saw his baby brother for the first time at the hospital, he moved in immediately to stand with his head right next to the infant, who was being held out toward him by his father. (Nine year old Deborah positioned herself next to Derek in a way that permitted her to have an unobstructed view of the baby.) At first, Derek simply focused on the infant's face and watched him intently. Then he brought his hand up and lightly stroked the baby's head. When the grandmother cautioned, "Be careful," Derek withdrew his hand.

A minute later, Derek asked if he could hold the baby. His father responded immediately to Derek's request and put the baby into his son's arms. His father helped support the weight of the baby and while he did so, he spoke in a high-pitched voice as if he were the baby, saying: "Hi, Derek. Are you going to be my brother?" Derek continued to hold David and to focus very intently on his face, nearly nose-to-nose. Meanwhile, the father pointed out infant characteristics that were similar to the older children when they were first born. Clearly, those parental strategies were intentional and were consistent with this family's belief that children should be included as much as possible.

In addition, these strategies also supported Derek in continuing to focus on and be close to the baby.

This example contrasts with the parental strategies and child behavior seen in the first meeting between Cassandra and her new sister described in the case discussion. When Cassandra was holding Christina for the first time and looking at her face-to-face, she was cautioned by the adults to be careful and given instructions to "not move." The cautionary and corrective parental comments appeared to interrupt and then diminish her attempts to focus on the infant. The data indicate that parental communications which correct a child's reaching-out and moving-in gestures also have the effect of reducing these attempts; conversely, parental communications or strategies that allow or support sibling-infant contact, without correction, result in continued moving-in gestures by the child.

The ways in which parents responded to the older child and infant at the first meeting were consistent with later home observations; that is, the strategies and parenting styles seen in the hospital were also characteristic of family interaction at home. Those parents who used strategies to support contact between the child and infant, and whose communication with the school age child was contingent and respectful of them as a person at the first meeting, continued this way at home. Those who tended to respond to the older child in a non-contingent way, and

whose strategies failed to support the reaching out and moving in behaviors in the hospital, also continued these parenting patterns at home.

After the initial meeting of the infant, gestures of reaching out and moving in take on a different function. Initially, the gestures appear to be ones of exploration and initiating contact. Later, these same gestures (searching the infant's face, establishing eye-to-eye contact, getting very close to the infant's face) are used to maintain contact throughout an interaction. Although all children demonstrated some form of reaching out and moving in at the first meeting of the infant, only some children built on these initial gestures and demonstrated them consistently in later interactions. For these children, the moving in behaviors became part of an ongoing mutual relationship with the baby in which the older child established and maintained intimate distance during the care, comfort, and/or enjoyment of the infant.

One example of this was identified in the videotape of the first postpartum visit to the Dunlaps. Nine year old Deborah was trying to soothe or pacify the crying infant until her mother was available to nurse him. With her forearms, Deborah held infant David upright in front of her face, and brought her head close to his. In that position she spoke quietly and soothingly to him. As David moved his body or head, she moved her own, maintaining close contact.

Maintaining intimate distance is one of the earliest dimensions of mutuality seen in school age siblings with new infants. Although it is seen most frequently at the first meeting of the infant, it takes on additional meaning as the relationship develops, as a means to maintain intimate space. Parental strategies and communication patterns may either support or interfere with these behaviors.

#### Identifying Infant Behaviors

Sibling mutuality also involves the ability to identify infant behaviors and to read infant behavioral cues. Both the children's interviews and the videotapes of sibling interaction demonstrated that some children were not only very aware of the variety of infant capabilities and behaviors, but they also modified their interaction with the baby based on the infant's behavioral cues. The children who gave the most detailed descriptions of infant capabilities and behaviors were also the children who demonstrated the most reciprocity in interacting with the baby. These then, are the dual aspects of this dimension of sibling mutuality: a) identifying actual infant characteristics and capabilities, and b) reading infant behavioral cues while interacting with the infant.

This dimension is affected primarily by two specific conditions: a) parental messages about the baby, augmented by b) opportunities for spontaneous interaction with the infant. That is, a child's awareness of infant capabilities

is facilitated by both information and uncensored interaction with the infant. Children build on information which parents provide about babies during interaction and therefore, need easy access to the infant.

One simple example of the relationship between information and access to the infant and the children's ability to identify infant characteristics was given by Eve. She remembered telling the children that newborns don't have tears when they cry. She reported later that the children were the first to notice when the baby began crying with real tears. They built on the information she gave them and through contact with the infant they were able to identify this developmental change.

A more complex example comes from the Dunlap family. (The Dunlap children did most of the drawings that can be found in Appendix A.) When 8 year old Derek was an infant he cried constantly. Don and Diane Dunlap remembered that experience as very stressful. In their prenatal messages to the older children, they warned them that babies cry a lot and recounted their experience 8 years prior. Consequently, in the children's prenatal interviews infant crying was mentioned repeatedly.

However, David turned out to be a very easy baby. Their prenatal ideas about babies--which had been based on the parents' messages, were altered by their actual experience with David postnatally. Both children had many

opportunities to interact with David and to watch his growth and development. Deborah gladly shared responsibility for childcare and Derek chose to sleep in the same room with the baby rather than in his own room on the other side of the house.

At one month, Deborah reported with unusual detail how the baby would stop crying in order to listen to sounds. She described how she would talk softly and calmly to him when he cried and then he would stop crying. She also reported that David smiled and even laughed sometimes when she made funny faces at him. At two months postpartum, Derek also gave very elaborate descriptions of how David preferred certain toys with visual characteristics or auditory stimuli and how the baby was responsive to certain kinds of handling.

Their level of awareness of infant behaviors was exceptional. Clearly, the meanings these children had about the baby after he arrived came from their first-hand experience with the infant, through opportunities for spontaneous and repeated interaction with David. However, their awareness of the infant's cues was also strongly influenced by parental information, and this became apparent at the end of the second postpartum visit. On a table in the family room, there was a copy of Brazelton's book on infancy (19 ). When asked about the book, they said that they loved it and they were sharing the book with the

children.

Diane: The kids love it. They say, 'How old is he now? What is he supposed to be doing?' and we look and we check. We think he fits the normal baby, not the quiet baby or the active baby. Now Derek would have fit the active baby! But then they want to know what he's supposed to be doing at what time: 'Oh, eight weeks: full open smile.' Oh, he does an open mouth smile, just right like clockwork.... Since the time he was born we've been following his growth and development in this book.

Derek and Deborah were, of course, the most sophisticated children in the study when it came to reading infant cues and recognizing the developmental significance of certain infant behaviors. They were also very affectionate and responsive to David's needs, and provided excellent examples of the pattern of sibling mutuality.

#### Ascribing Feelings and Intent to the Baby

This dimension includes behaviors such as speaking for the baby (often in a high-pitched voice), assigning motivation or intent to infant behaviors, or stating the infant's thoughts or feelings. These behaviors are seen across generations: Parents and grandparents do this as well as children.

Sometimes ascribing feelings to the baby occurs as a spontaneous empathic response to something happening to the baby. For example, Derek and Deborah were outside of the nursery window with their grandmother, observing David being weighed, measured, and injected with vitamin K. Commenting on the uncomfortable experiences the infant was having to endure, the grandmother said, "I bet he's saying, 'I had it

a lot better when I was inside my mommy's tummy!'" On this occasion, the grandmother's speaking for the infant seemed to be a spontaneous empathic response to the infant's experience. At other times, ascribing behaviors are clearly an adult strategy designed to foster a positive connection between the sibling and infant, as when Mr. Dunlap spoke for the infant when Derek was meeting the baby for the first time (see earlier example).

The following examples demonstrate several forms of ascribing behaviors observed in children: a) speaking for the infant in spontaneous response to an infant's experience or behavior, b) providing an explanation for infant behavioral cues, and c) creating a connection between oneself and the infant.

In the earlier description of the baby bath, Elliot spoke for the baby on several occasions in response to the infant's immediate experience. When Eric got water in his face, Elliot said in a concerned way, "Did that go up your nose? Are you okay?" Then he also replied for the baby saying, "Yeah. Now I am a little bit." When he saw a look of discomfort in the infant's face, he spoke for Eric again. "Do I have to burp? I don't know. Maybe I have to burp sitting up."

This kind of speaking for the baby appears to be a form of empathic response--putting oneself in the place of the other--and as such, it is related to the behavioral



dimension discussed next: empathizing. It also appears to be an essential element in responding contingently to the infant's cues. In fact, ascribing intent to the baby's behavior, reading infant behavioral cues, empathizing, and responding contingently are all part of an interrelated constellation of responses. For example, in a postnatal interview, Elliot ascribed intent to the baby in order to explain the infant's behavior. Elliot was explaining how he could tell from Eric's behavior when he was hungry: "He wants to suck on things. He wants milk to come out of his fingers, so I tell my mom that he's hungry." Elliot was, in fact, responding accurately to what we know to be behavioral indicators of hunger in an infant.

Ascribing intent to the baby may be done in response to specific and clear cues of the infant as in the previous example of Elliot and Eric, or in response to ambiguous or non-existent cues. For example, some children ascribed motivation or intent to fetal behavior. In the prenatal interview, Derek reported that he had felt the baby kick inside of his mom's tummy, and explained that the baby was kicking because he wanted to get out. Ascribing intent in this case was in response to an ambiguous behavior and was done to give meaning or explanation to the baby's behavior.

Ascribing feelings or speaking for the infant is also done to suggest that there is a special bond or connection between the infant and oneself or that the infant knows the

sibling. Many children report that the infant knows them, and they provide specific behavioral evidence for this. At the fourth postpartum visit, Deborah explained that she knew that David knew who she was because of his response to her voice: "When I got my hair cut he looked at me really funny. He didn't know who I was at first until he heard my voice."

Adam (5 years old) also spoke for the baby in order to convey the existence of a special interpersonal connection. Three months after the baby's arrival, he told an elaborate story about a bear and a boy and a basket, a story which he said was told to him by the baby when the baby was making baby talk. He explained that he, Adam, could understand the baby talk and the baby's crying because he, himself, had been a baby once and used to speak that language. In that same interview, Adam gave an elaborate explanation for the proper way to fly a toy blimp over the baby's head (not too high or he won't see it; not too low or the string will get tangled in his fingers). He included this description of the baby's response: "When I fly the blimp over him he likes it, and you know how I know? 'Cause he goes like, 'Heehh,' and you know what that means? That means that he is saying (he uses a tiny high-pitched voice), 'Thank you, Adam.'"

Cassandra used "speaking for the baby" in two other ways which were unique and not observed in any other family.

At the second postpartum visit, Christina was having a fussy morning. When Carol picked her up, Christina would stop crying. Carol made numerous references to the infant being "spoiled" because she "just wants to be held." Carol was talking to Christina who was lying in an infant seat on the kitchen table. Cassandra was eating breakfast. In this instance, Cassandra spoke for the baby in the infant's defense.

Carol: What a spoiled little baby!

Cassandra: Say, 'I'm not spoiled!'

Carol: Yes you are!

Cassandra: Say, 'I'm a good girl.' Huh! Say, 'Yeah.'

Carol: 'Good Girl' likes to be held, don't ya' Stinker!

Later in the same visit, Cassandra was sitting on the sofa next to Christina. Christina was propped in the corner of the sofa on a pillow and Cassandra was playing with a squeaking clown toy that belonged to the baby. The infant was watching her, but Cassandra was focusing on the toy while she carried on this imaginary conversation:

Cassandra: It's blowing! Hey, the clown loves this thing, Chrissie. Say, 'Stop blowing it! It's mine! It's mine.'

(Cassandra began hitting herself with the squeaking toy clown.) Say, 'Stop hitting my sissie!' Chrissie! Help!

(Later in the same visit, the infant was crying in her infant seat on the floor, while Cassandra sat near her, using the clown to hit herself, repeatedly.)

Cassandra: Chrissie, he's punching me! Yeah, you tell him. Say, 'You stop punching my sister!'

In this instance, Cassandra spoke for Christina to create an imaginary defense for herself when playing with a toy. This

kind of speaking for the infant in imaginary play is a different phenomenon than the interactive, relationship dimensions being discussed here, in that the former is done without regard to the infant's behavior at the moment. However, this aspect of sibling play would be a very interesting area for further investigation.

In summary, the behavioral dimension of ascribing appears to be an especially significant one in the development of sibling mutuality and may serve several purposes: assisting children in interpreting infant cues and also promoting positive affective connections. Because it is done spontaneously by both adults and children, and also by adults as an intentional strategy, the origin of this behavioral dimension in children is not entirely clear. Do children ascribe feelings and intent to the baby because they hear their parents do so? How does this relate to similar forms of behavior in which children speak for stuffed animals and dolls or ascribe feelings to inanimate objects? The findings of this study cannot answer all of these questions. There may be conditions as yet unidentified that contribute to its appearance. What is clear is that ascribing behaviors occur without prompting in spontaneous family interaction, and are done by both adults and children alike; they appear to facilitate accurate reading and responding to infant cues; and they may also facilitate affectional bonds between siblings.

### Empathizing

Ascribing or speaking for the infant is a form of putting oneself in the position of the infant, experiencing the world from the baby's perspective. The quality known as empathy is generally understood as identifying with another person or vicariously experiencing the feelings or thoughts of another person (particularly discomfort or suffering). When one compares "ascribing behavior" and "empathy," they appear to be two aspects of a similar phenomenon and both may be essential for accurately reading infant cues and responding sympathetically to infant distress.

The dimension labeled empathizing was defined as "sharing in the infant's emotions or expressing concern or caring for infant's feelings." Like most of the other dimensions, it was first identified in videotapes of interaction and the interviews and drawings provided additional validation and elaboration of the dimension.

When Deborah and Derek were watching the admission procedures through the nursery window with their grandmother, they saw the nurse handling a syringe of dark fluid (vitamin K). There was quite a bit of discussion among them as to whether the baby had gotten a blood test or was going to get a shot and whether that would hurt him. When he did get the vitamin K injection, the videotape clearly revealed a pained expression on Deborah's face, a non-verbal indicator of the behavioral dimension of empathy.

Evidence of empathy was also seen in children's drawings. The best example was one which portrayed the infant in a bath tub, with tears coming from his eyes: "Davey had his first bath in the sink today. He hated it!" (see Appendix C).

At the fourth month interview with Eve, she reported that the children seemed to be minding the infant crying more than she did, and they would respond by picking up the baby and trying to comfort him. The videotapes of this family showed that this baby cried a great deal and was not easily consoled. The children's interviews indicated that they minded the crying but the children understood Eric's crying as the means by which he communicated hunger and/or loneliness. All children in the study mentioned infant crying as one of the worst things about having a baby in the family. Some, like the Emerson children, viewed it as the infant's way of communicating a need and would attempt to meet the need. Others simply complained that it bothered them or reported the crying to the mother so she could intervene.

Since several of the dimensions of sibling mutuality appear to be forms of empathy, this raises some interesting questions. What are the sources of empathy in children, specifically, empathy for a sibling? What fosters its development? This study has begun to answer these questions in that the findings indicate that children who demonstrate

these dimensions are those who have been recipients of empathic treatment themselves. Also, children who have been assisted in recognizing infant cues demonstrate empathic behaviors with the infant.

#### Embodied Awareness in Handling

This dimension is perhaps the one most difficult to explain verbally. The visual data revealed that some children handled the infant with seemingly intuitive awareness of how the infant might feel as the recipient of their handling. This was not simply a matter of consciously "being careful;" sometimes "carefulness" can be awkward and uncomfortable for the recipient. This dimension appears to emerge from a non-cognitive awareness, something that might be called "embodied knowledge" in a phenomenological view. (Benner) In that sense, this behavioral dimension is the embodiment of reciprocity and mutuality.

The other way that this can be elaborated is that the handling of the infant appears not to be a matter of doing something to the infant, but rather doing something with the infant, in a way that experiences the infant's experience.

#### Affective Associating

This dimension has to do with behavioral indicators of affection or an emotional bond with the infant. Affective associating can be observed in various forms. In the interviews, children reported a variety of affectively positive experiences with the baby. In the case discussion

of the Armstrong family, Adam's comments about wanting to be a twin with the baby indicated an affectionate tie, in a rather complex way.

Sometimes children ascribe feelings of affection to the infant in order to indicate an affectionate bond between the infant and himself. Often a child will say, "the baby likes me" or "the baby likes it when I smile at him." Children also report that the baby "smiled because he was glad to see me," indicating that the baby feels a special affection for them. Six year old Brian used similar comments postnatally to imply that the baby had a special connection or affection for him--and for his mother--but not for his two sisters. He reported that the baby smiled at him right after the birth and also smiled at his mother, but didn't smile at his sisters. He also spoke with a kind of effusive affection at one month postpartum:

Brian: I pat her head and she's happy....I ask my mom if I can hold her and she lets me. Interviewer: And what happens when you hold her? Brian: She's happy. I: How do you know she's happy? Brian: 'Cause every time I hold her she smiles at me, and she looks at me.... When it grows up and be's my friend I'll be happy--real happy, definitely happy. Really, really, really!

A pride of association is one indication of a positive affective connection with the infant. Parents often report that the children seem particularly proud of their baby sibling and they like to show the baby to school friends and peers. Deborah verbalized this in a unique comment in the first postpartum interview, a comment which she also



represented in a drawing (see Appendix A). She said, "I like hearing complements to David because it makes me feel good that I am his sister."

There are prenatal precursors of this affection, but like other prenatal meanings, they are vulnerable to postnatal conditions which may either support or extinguish those meanings. In the prenatal interview with Gregory, he anticipated feelings of closeness and wanting to be with the baby.

Interviewer: Now you were telling me what fun it is to be a big brother. Is there anything that's not good about being a big brother? Gregory: No. But... I: go ahead. G: But of course, there's going to school, and I'll miss my time with the baby. And the baby will miss my time. I: Yeah. And how does that feel? G: Pretty disappointing.

Although Gregory seemed to have an initial interest and the prenatal precursors of affection associated with sibling mutuality, the postnatal family conditions did not foster this kind of relationship with his infant sister. His mother's active solicitation and management of his interaction with the baby and her attempts to make it happen in a certain way, reduced his opportunities for spontaneous uncensored sibling-infant interaction.

### Personification

This behavioral dimension is defined as "treating the infant as a separate person, with needs different from one's own." It involves respecting the baby as a person. Some of the behaviors that indicate that a child is seeing and

treating the infant as a person in his/her own right include: calling the infant by name, identifying needs that the baby has that are different from one's own, talking about the baby as an equal member of the family, and identifying unique qualities in the infant.

The absence or opposite manifestations of this dimension would be: treating the baby consistently as an object or as a performing pet, ignoring or discounting the baby's behavior, or using the baby to fulfill one's own needs even when the baby's needs conflict with that. For example, people often interact with infants in the same way that they interact with animals, trying to stimulate them to respond in a certain way and ignoring the infant's responses or needs. However, if this pattern is carried out to the exclusion of treating the infant as a person, then this dimension of mutuality is considered to be absent.

One example of recognizing the baby's needs and seeing the baby as separate from herself was described by Deborah in an interview (and was also represented in a drawing). "Today while my Mom was walking the dog I picked up Davey and he grabbed on to my hair! I thought may bay [sic] he's reaching for a rattle.... And He WAS!!! I think it looks like a barebell." There are many possible ways that a child can respond to hair-pulling. Some children explain how you have to remove the baby's hand gently; others complain that it is one of the bad things about having a baby sibling.

But Deborah's response indicated that she interpreted it as a demonstration of David's developmental readiness for a certain toy.

There may also be an "imitative" effect, also; that is, if children see their parents treating the infant as a person, they may treat the baby in the same way. In daily family interaction, Ann and Alex often spoke to the baby in a way that acknowledge him as another person in the family. "Hi, Aaron. Do you want to be up here with everyone else at the table?" Adam's interactions with the baby, although relatively infrequent, had this same nonchalant quality of regarding Aaron simply as another member of the family.

Sometimes parents set the example by treating the infant's needs as equally important to the needs of other family members and this is one way of acknowledging that the baby's has needs of his own. Frank and Flora had included 11 year old Felix in prenatal activities as well as in the labor and birth. He was also included as someone who could help meet infant Freddie's needs. This was manifest particularly at meal times when taking care of Freddie's needs meant that someone had to stop eating. This family took turns being the person to postpone eating in order to take care of the baby--whether that meant holding, swinging, or comforting the baby. Freddie's need to be cared for was just as important as the other family members' need to eat. Felix described how he would take care of Freddie while his mother cooked and ate, and then he would eat and his father

would take care of Freddie. Then his mother would nurse Freddie while the father and son finished eating and helped clean up. This shared approach to meeting everyone's needs was characteristic of this family's interaction.

Interviews with Felix revealed that he saw the baby as another person in the family who needed things just like everyone else, and they all had to make accommodations for each other. When asked what things were different for him since the baby's arrival, Felix elaborated on the shared childcare during dinner described above. He also said that doing his homework with his mother's assistance usually took longer now, because sometimes she would need to stop and feed or take care of Freddie. It was not expressed in a way that indicated that something was being taken from himself, but that that was just the way things change when you have another person to consider in the family equation.

Seeing the infant as having his own personality is another way of treating or viewing the infant as a person in his own right. Derek gave a wonderful example of this. In explaining how David had his own personality, Derek said "He has a good sense of humor, 'cause he laughs all the time." This is partly ascribing, but is also a form of recognizing the infant as an individual.

The conditions which directly affect this dimension are consistent with the theory presented from the data: The findings indicate that when a child experiences being

treated with respect as a person with interests and needs that are important, he or she is more likely to treat the infant that way.

### Reciprocal, Synchronous Interaction

This final dimension is defined as recognizing the bi-directionality of interaction and responding contingently to infant cues. That means, realizing that one's behavior affects the infant and vice versa, and then modifying what one does in order to continue that reciprocity. This behavioral dimension integrates many of the other dimensions: awareness of infant capabilities and reading infant cues, embodied awareness in handling, treating the infant as a person, and maintaining intimate space while interacting.

Evidence of this dimension was identified in all three forms of children's data: videotaped interaction, children's interviews, and drawings. The videotaped observation of Elliot's involvement before, during and after Eric's bath (described at the beginning of this chapter) provided several examples of reciprocal, synchronous interaction, including instances when he reached out to soothe the infant both physically and verbally.

Some children were able to convey in the interviews the reciprocal quality of their interaction with the infant. An excellent example is Adam's description of his interaction with Aaron (see discussion under ascribing feelings and

intent). His interaction with the baby may have been infrequent, but it was experienced by him as both reciprocal and mutually affectionate.

One of Deborah's drawings was especially effective in demonstrating bidirectionality of interaction: altering one's own behavior in response to something the infant does, and having the infant respond in kind. In her drawing the baby is crying and she is talking to him:

Davey always stops crying when he hears this sound....

Step 1 (baby): Wha wha! wha! baby talk, wha.

Step 1 (sister): Be quiet. Sh! Sh! Rock a my baby....

Step 2 (baby) Ah ooo, ssa sta aka too pa.

Step 2 (sister): Ok ok. Ha who..... Ha who.....

Davey likes the sound ha who!

(see Appendix C)

These are the eight behavioral dimensions that were identified as comprising the pattern of sibling mutuality. These behavioral dimensions indicate a certain quality of connection between the sibling and infant. What the data show is that some children make this connection with the baby quickly and early, and maintain it. Others make a quick connection but do not continue to demonstrate mutuality either in the videotapes or interviews. Other children do not give indications of sibling mutuality throughout the four months, and their interaction pattern may range from ignoring to interacting with the baby completely non-contingently.

Discussion: Conditions for Development of Mutuality

### Family Interaction

The findings of this research indicate that certain family conditions are critical contributors to the development of sibling mutuality. The paradigm examples of sibling mutuality were found in the videotaped sibling-infant interactions of 6 year old Elliot, 9 year old Deborah, and 11 year old Felix, although evidence of mutuality were seen in other children as well. The children who provided the paradigm examples of mutuality had frequent and easy access to the baby, and were allowed spontaneous, uncensored interaction with the infant. Furthermore the paradigms of all three of these families viewed the infant as a shared responsibility between parents and older children and the parents used strategies which naturally included the older children in the comfort and care of the newborn. Felix recognized the importance of these strategies. When he was asked what advice he would give to the parent of another child to help that child get acquainted with the new baby, he said, "Let him hold him a lot. Let him play with him a lot and take care of him a lot."

Finally, and maybe of greatest importance, the videotaped observations of these families demonstrated that the parental communication with the older child manifested a similar pattern of mutuality: contingent, empathic and reciprocal. That is, the older child had first-hand

experience of being treated in this mutual, respectful way.

Children in two families demonstrated an absence of mutuality over the four months. The family conditions were similar in this respect: When the children were interacting with the infant, their interaction was usually corrected by the parents. In addition, they had fewer opportunities for spontaneous, uncensored interaction with the infant. Finally, the children often were the recipients of a corrective, controlling parental style of communication.

#### Individual Conditions

The study also provides some evidence that individual factors influence the variety of sibling relationship outcomes. One individual contribution may be temperament or personality. Elizabeth's parents saw her more serious, surrogate parent role as a manifestation of her more serious personality. "You know, first daughter and all that." Adam's parents described him as "thing-oriented" and thought that that might explain his lack of interest in the baby. Both sets of parents thought gender and age might be a factor. One might expect that the girls in the study would be more caretaking and more mutual in their response, and that younger boys would be less interested in the baby. However, the paradigm examples of mutuality were found in boys more often than girls, and were found in young children as well as older school age children. The paradigm examples of non-mutual relationships were found in an 8 year old girl



and a 6 year old boy. The limitations of the sample prevent the confirmation or disconfirmation of the impact of gender or age as factors in sibling mutuality, but at this point, the data do not support that either age or gender determine the sibling outcome.

#### Children's Meanings

The meanings the sibling role has for the child may be a contributing factor--or may be another consequence of the family and individual factors. Differences seen between siblings within the same family may be related to meanings. Those children who viewed their sibling role more as a personal peer and less of a caretaker, demonstrated a form of mutuality that was more intimate and playful, as in Elliot's relationship with Eric, Felix's relationship with Freddie, and both Deborah's and Derek's relationship with David. Elizabeth saw her role not as a peer, but as a caretaker, and her relationship with Eric was mutual, but less intimate and playful than Elliot's.

However, those children whose postnatal understanding of their older sibling role was based on sources extraneous to the actual sibling-infant interaction, or on parental messages, were likely to demonstrate a relationship with the infant that was non-contingent, distant, and non-mutual. One cannot say whether the extraneous meanings came first and the lack of mutuality came later or vice versa.

### Chapter Summary

This chapter has focused on a pattern of sibling-infant interaction called sibling mutuality. Sibling mutuality includes both affectively positive indicators of the relationship as well as reciprocal, interactive aspects of the sibling relationship. Eight distinct behavioral dimensions of this pattern were identified from the data and examples from various families have been presented to clarify those dimensions. The following chapter will discuss the strengths and limitations of this study and will suggest directions for future sibling research.

## CHAPTER 7

## DISCUSSION CHAPTER

Contributions of this Research

This research has made several unique and important contributions to the knowledge base concerning early sibling relationships. This study is the first in this research area to focus on the relationship between school age children and newborns. Furthermore, the findings are based on analysis of whole-family data, including data gathered from children themselves. (The importance of including children's data in sibling research has been discussed in Chapter 2.)

The primary contributions of this study are: the explication of specific behavioral dimensions of early sibling-infant interaction and the beginning identification of parental communication patterns that appear to either foster or hinder mutual sibling relationships. Eight distinguishable behavioral dimensions of sibling mutuality were derived from the children's data, especially the children's interviews and videotapes. These behavioral dimensions reveal a level of reciprocity and intimacy not previously identified in earlier sibling research. The identification of this pattern of sibling-infant interaction is an important first step in understanding early sibling infant relationships in healthy families.

The findings from this study also suggest that the development of sibling mutuality is related to parental

communication patterns. In families where sibling mutuality was observed, parents interacted with the school age child with a similar form of mutuality, responding contingently to the older child's questions and comments, and responding to the child as a person with needs and feelings of their own. These findings suggest that parent-child mutuality is a condition which favors the development of sibling mutuality. Furthermore, the behavioral dimensions of mutuality appear to be fostered by parental "allowing" and "relaxed facilitating" of sibling-infant interaction. Behaviors of mutuality appear to be unsupported or hindered by parental cautioning and correcting of sibling behavior.

These findings form a beginning substantive theory of early sibling relationships. Although the theoretical connections are not fully developed, the study contributes to an emerging body of knowledge which addresses the relationship between family interaction and early sibling relationships. The findings build on previous sibling research, provide greater meaning for more limited sibling studies, and suggest directions for future research.

#### Relationship to Previous Sibling Research

Extending previous findings. In Chapter 2 several longitudinal studies were discussed which explored the relationship between family interaction and sibling relationship outcomes. The works of Dunn and Kendrick (1982a, 1982c), and Kreppner, Paulsen, and Scheutze (1982a,

1982b) both suggested that parental communication was related to the responses of toddler and preschool siblings to a new baby.

This research extends the knowledge gained from these previous studies by focusing on relationships between school age siblings and newborns, by identifying specific behavioral dimensions of sibling-infant interaction, and also by identifying the relationship between certain parental communication patterns and sibling mutuality. Five communication patterns were identified which appear to be directly related to sibling interaction. (These patterns are discussed in Chapter 5.)

Although the categories of parent and sibling data are different in this study, the findings reveal some interesting similarities to the findings of the European studies mentioned above. Over and above the cultural differences which are apparent in these studies, several common parental strategies have been identified across all three studies, strategies which appear to be associated with positive sibling relationships:

- a) speaking about and treating the infant as a person;
- b) helping the older child to understand the behaviors and needs of the infant; and
- c) inviting the older child to participate in the decision-making and to share responsibility for meeting the needs of the infant.

Providing new perspectives on limited studies. This theory also has the potential for bringing greater meaning and significance to the findings of earlier, more narrowly focused, sibling research. For example, this theory of sibling mutuality provides a new theoretical perspective on Daniels' (1983) study of children at birth. This theory suggests that "ascribing feelings and intent to the infant" is related to reading and responding to infant cues and establishing an affectively positive and reciprocal relationship with the baby. Seen through this perspective, the "ascribing behaviors" which Daniels describes in her study take on new meaning. Such behaviors can be understood as part of a more complex pattern of interaction with the infant which includes both empathic and reciprocal qualities.

This theory also sheds new light on Gomez's (1983) study of families who included their children in the birth of the infant. She identified certain family themes from parental explanations about why they chose to have their children attend birth (e.g., wanting to include the children in a family event, family togetherness, and sibling bonding). Most of her families believed that the baby's arrival was an event to be shared with the children and they valued family togetherness. One cannot assume that all parents whose children attend the birth share the same values and beliefs. However, when Gomez's findings are

viewed in the light of the findings from this research, the family beliefs and themes which she identified may be understood as elements of a larger constellation of family values. This conceptual perspective on Gomez's findings helps to raise other questions for future research on siblings and birth: Do parents who have their children attend the birth also tend to believe in sharing responsibility for the infant with the older children? How does that belief relate to the strategies they use at home in an ongoing way? What does the sibling outcome look like when children attend the birth and postnatal family interaction does not support shared responsibility for the baby?

#### Limitations of this Study

##### Partial Nature of the Theory

The primary limitations of this study are found in the partial nature of the theory. The theory of sibling relationships derived from this work is a beginning one which needs further development. Although specific dimensions of the sibling relationship have been identified and related to parent-child interaction, other theoretical linkages have yet to be clarified. Particularly, conditions under which mutuality occurs need to be expanded and future analysis of family data needs to examine the fit between family beliefs and strategies, recognizing the circular nature and complexity of the relationship between context,

values, and interaction.

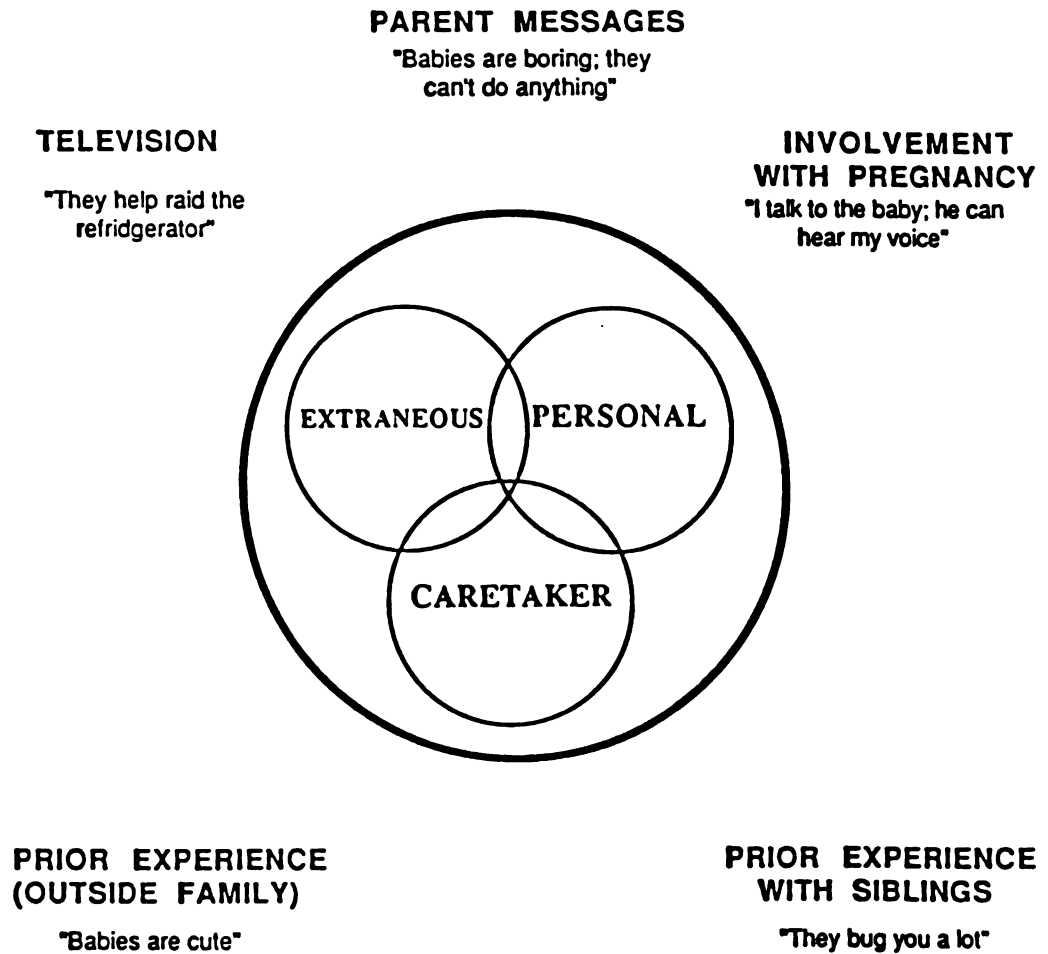
### Changes Over Time

Another limitation of this research relates to issues of change. When this study was proposed, the expectation was that the data would reveal a process by which sibling relationships develop, perhaps a step-by-step trajectory or phases of sibling relationship development from birth to four months postpartum. The data revealed consistencies within sibling relationships over the four months, rather than phases of relationship change.

Some aspects of change were identified from the prenatal period to the postnatal period, specifically in the meanings the infant had for the school age children (Murphy, 1988b, April). As discussed earlier, the meanings the sibling role has for the older child prenatally appear to be based on a variety of sources, including previous experience with infants, and information from parents, television, and other extraneous sources (see Figure 6). After the baby arrives, extraneous ideas about the baby and the sibling role seem to fade as meanings are modified by direct experience of the infant. Children who see their role with the baby as peer or friend appear to demonstrate more intimate dimensions of sibling mutuality than children who see their role primarily as surrogate parent or caretaker.

There were also some indications that subtle changes in sibling-infant interaction begin to occur around four months





**Figure 6**

Prenatal sources of school age children's meanings about babies and the sibling role.

postbirth. At that time, sibling-infant playfulness took on a more exuberant flavor, particularly for those children who had (throughout the study) demonstrated an especially mutual relationship with the infant. The subtle changes at this time may be related to the increased responsiveness and increased physical capabilities of the infant. Observation over a longer period of time needs to be done in order to determine whether such observations represent a specific pattern of developmental change over time or unique individual differences.

In regard to the research question concerning process over time, sequential phases of sibling relationship development were not seen. Several possible explanations for this can be proposed. One explanation might be that such phases of change are present in the first four months but were not perceived by the researcher, and that secondary analysis of the data may reveal phases not previously identified. Another possible explanation is that there is a trajectory of sibling relationship development but that it becomes more apparent over a different time span and was not measurable by the pre-selected time frame of this study. For example, one might hypothesize that phases in sibling relationships occur primarily in the first few days or weeks after the birth. If so, the data collection points in this study would have been too far apart to detect them. In future studies, data collection would need to be more

frequent during the first month in order to identify such a trajectory.

On the other hand, identifiable phases of relationship change may occur over a much wider time period, beginning prenatally when the possibility of a baby is first discussed, and gradually occurring over years. The stages of family structural change identified by Kreppner et al. (1982a) seemed to occur in approximately 8 month increments. If sibling relationships follow a similar trajectory, these phases should become apparent in the long-term follow-up of these families.

Finally, it is possible that the original expectation of identification of phases over the first 4 months may have been based on incorrect assumptions and that sibling relationships do not develop in a stage-like way. Perhaps the conditions that determine sibling outcome are already in place before the infant arrives. Perhaps sibling relationships are particularly vulnerable to immediate situational factors and do not build gradually from one level or phase to another, but are either close or distant from the beginning depending on conditions in the family context. The answer to the research question, "How do sibling relationships change over time?" has yet to be answered, and this research has raised more questions about change and consistency.

### Individual Factors

The life span developmental framework assumes that individual differences, as well as contextual factors, contribute in an ongoing way to the evolving sibling relationship. Findings from previous sibling research have been inconclusive in identifying individual factors associated with outcomes in sibling relationships--factors such as gender, developmental capabilities, or temperament. The data in this study suggest that individual differences (for example, temperament of the older child) may be important in early sibling relationships, but the relative contributions of such individual factors are difficult to sort out. This study did not attempt to address individual constructs such as temperament in school age children. Furthermore, the limited number of children in this study precludes making generalizations about temperament, age, cognitive development, or gender. This study also did not address the individual contributions of the infant to the sibling relationship. Although the fourth month data suggest that changes in infant responsiveness and infant developmental capabilities may influence sibling-infant interaction, these questions of individual factors will require further study.

### Recommendations for Future Research

One of the goals of this research was to help lay a foundation for future research by increasing our knowledge

of early sibling relationships in healthy families. There are several directions in which this research could be naturally extended.

#### Extension Longitudinally

One recommendation would be to conduct a longitudinal extension of this research through at least the 24th month postpartum. This would permit observation of sibling relationships over a longer time-span, and might provide answers to these and other questions: What patterns of sibling interaction are seen over the two years? How does sibling interaction at 24 months relate to the early pattern of sibling mutuality?

#### Extension Across Populations

Extension in health and illness. One of the major categories of interest in family nursing research at this time is the study of family responses in both health and illness, including developmental transitions (Murphy, 1986). This theory could be further developed by purposefully broadening the variety of healthy families: for example, one could replicate this study with families of different cultural backgrounds or family structures.

This research also could be extended to include obstetrically high-risk families or families with an ill newborn. How do sibling relationships differ when the infant is premature or must remain in the hospital for an extended time after birth? How does the inclusion or

exclusion of sibling visiting in the intensive care nursery relate to sibling response later, and where does sibling visiting fit in the theoretical model? How does that experience affect the meanings the baby has for the school age child and the manifestation of sibling mutuality?

Extension to different age ranges. This researcher continues to be interested in how school age children differ from children of other ages in the way they relate to infants. This is a difficult question to answer partly because of sampling limitations and partly because of the varied conditions within families. Because of the predetermined limits of the sample this question can not be answered by this study. However, future studies might compare age groups of younger and older siblings (4-5 year olds and 11-12 years olds) with a sample of 6-9 year old children, or compare siblings of different age groups within the same family.

#### Extension to Other Theoretical Work

Relationship to empathy research. Of the eight behavioral dimensions of sibling mutuality identified in the study, several appear to be forms of empathic behaviors, including: reading infant cues, ascribing intent or feelings to the infant, and treating the infant as a separate person. In addition, the parental communication patterns that appear to be related to the development of sibling mutuality also include empathic behaviors. Use of a well designed and

tested measure of empathy would allow exploration of a possible link between this theory of sibling mutuality and an apparently related conceptual area: parent/child empathy and the development of empathy in children.

The Feshbach and Roe Affective Situations Empathy test seems to be the most appropriate measure available to explore these theoretical connections. The instrument developed by Feshbach and Roe (1968) is appropriate because a) reliability studies and norms have been established; b) there is an adult as well as children's form of the instrument; c) the tool has already been used to study the relationship between empathy ratings of parents and those of children; and d) it has been used to correlate empathy with nurturing behaviors in children, behaviors which are similar to the behavioral dimensions of sibling mutuality.

Relationship to other family frameworks. This theory of sibling relationships is a small piece of a much larger research area, related to family values, interactions, and relationships. There may be value in looking at these data in terms of several broader areas of family research, for example, looking at the relationship between sibling relationships and family typologies (Constantine, 1986; Olson, Sprenkle, & Russell, 1979).

#### Implications for Practice

Application of this theory to practice may be premature until we know more about long-term outcomes in sibling

relationships. There is a very real risk in trying to apply this theory to practice prematurely. That is the risk of treating "sibling mutuality" as a goal or standard against which family interaction is judged. This risk is similar to the popularized misuse of parent-infant bonding research. One way of avoiding such misuse of the theory would be to emphasize the broad range of sibling responses to infants and the complexity of family research and theory. Sometimes parents seem to be looking for some specific strategy that will guarantee positive sibling relationships (have the children attend birth or take them to sibling preparation classes). As discussed in Chapter 2, nursing research has sometimes reflected this over-simplified view of sibling relationships, by treating participation at birth or sibling classes as independent variables in determining sibling outcome.

Sibling relationships are a much more complex phenomenon than that. The findings from this study as well as the findings from other longitudinal studies suggest that sibling outcome is the result of a complex interweaving of family communication style and ongoing interaction between the members of the family. In working with childbearing families, nurses need to let parents know that outcomes in sibling relationships are constantly being created, that no single event or strategy will either make or break the relationship. Those who teach childbirth and sibling classes have the additional responsibility to avoid



presenting overly simplified solutions to parental concerns about siblings.

The fact that this is a complex phenomenon does not mean that we won't be able to identify interventions to address sibling relationships. Certainly, the findings of this study indicate that parental communication with the older child, specifically in regard to the baby, is an important condition for supporting mutual sibling relationships. If the longitudinal extension of this study indicates that these family conditions continue to have the same impact on sibling mutuality, there may be significant implications for nursing practice. Nurses may be able to provide interventions at several points: supporting parents in communicating in a mutual way with their older child, encouraging parents to allow more opportunities for spontaneous interaction between siblings and infants, and providing guidance to parents in responding to sibling interaction in ways that encourage contact with less censorship and more support of the sibling relationship itself.

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**APPENDIX A**

TABLE 1a: SIBLING RESPONSE TO THE BABY

STUDY-FIELD-COUNTRY	SAMPLE	METHODS/ANALYSIS	RESULTS	COMMENTS
Koviatos, Adams, Gilman. (1984) Nursing United States	29 mothers of toddlers; 15 mos-4 yrs.	Theor. Framework: Rivalry. Single phone interview, 3-6 weeks postpartum Structured questionnaire re: "Regressive behaviors."	<ol style="list-style-type: none"> <li>1. 93% mothers report at least 1 regress beh/toddler in 3-6 weeks</li> <li>2. Aver. 8 regressive changes = 4.2/toddler.</li> <li>3. 3-4 y.o. had fewer regress beh than younger toddlers.</li> <li>4. Sl. less regress beh in sibs who visited, but not stat signif, &amp; not analyzed by age.</li> <li>5. &gt;50% report sleep changes; &lt;50% rept toilet/eating changes.</li> <li>6. Most mothers satisfied with sib beh &amp; own ability to handle it; 3 mothers asked for help in dealing with toddler beh.</li> </ol>	<ol style="list-style-type: none"> <li>1. ♂ control group (mothers of toddlers 3 new baby); conseq. unable to separ. normal devel beh from response to baby.</li> <li>2. Did not differentiate betw 3 &amp; 6 weeks pp.</li> <li>3. Tool biased to detect only "regressive" behaviors.</li> <li>4. Limited data analysis (frequencies by age only).</li> <li>5. Mat repl, 1x; retrospective</li> <li>6. "Yes-No" scale reduces poss variance &amp; reliability.</li> <li>7. Validity &amp; reliab threats rel. to interviewer style (acknowledged by authors).</li> <li>8. Attrib. to "rivalry," altho devel &amp; other variables cited by mothers.</li> </ol>
Legg, Sherrick, & Hadland (1974) Psychiatry United States	21 well-educ mothers of "preschoolers;" 11 mos - 5 yr 2 mo	Theor. Framework: Freudian. Exploratory, descriptive.  Single maternal interview (retrospective) re: ap sib response, intrapartum beh., & pp home response.	<ol style="list-style-type: none"> <li>1. ↑ father involvement → ↑ growth &amp; mastery beh.</li> <li>2. Supportive parents ↑ growth &amp; mastery beh.</li> <li>3. Regression rel to devel age PLUS additional stresses.</li> <li>4. "Aggressive" beh. ↑ likely in children under 2 y.o.</li> <li>5. Children &gt;3 y.o. want to help care for baby.</li> <li>7. ↑ conflict when inf becomes mobile (8-10 mos).</li> <li>8. ♂ diff. rel sex of sib/baby</li> <li>9. I.d. poss rel variables: house moves, hosp. visiting, prev. childcare experience, prev. inf. death, temperament, bilingual/cultural effects, changes in living situation.</li> </ol>	<p>Strengths:</p> <ol style="list-style-type: none"> <li>1. Wide devel. span, from 21 mos.-5 yr. could be liab. but authors use for comparison</li> <li>2. Provides valuable anecdotal info re: pets, books, cribs, etc.</li> </ol> <p>Limitations:</p> <ol style="list-style-type: none"> <li>1. Maternal report; 1-time only.</li> <li>2. Much data but limited organization.</li> <li>3. Use of Freudian explanations to justify unexpected findings.</li> </ol>

TABLE 1a, cont.: SIBLING RESPONSE TO THE BABY

STUDY-FIELD-COUNTRY	SAMPLE	METHODS/ANALYSIS	RESULTS	COMMENTS
Marecki, Thompson, Lechner-Hyman (1985)	30 preschoolers from 27 families 3 Y.O. = 15m 4 Y.O. = 13m 5 Y.O. = 2h Volun. sample	Theor. Framework: Attachment? Bonding beh. Exper gp. had 4 sib $\bar{a}p$ classes All 30 sibs videotaped $\bar{c}$ mo. & baby on day of hosp disch, 1st 5 min. of meeting $\bar{c}$ inf. 2 trained observers analyzed tapes for presence/absence of 28 pre-identified "bonding behaviors"	1. high degree of proximity of sib to inf. 2. rare sib-inf "enface" position (6.7%). 3. Girls stood closer to inf than boys. $p < .10$ . 4. $\bar{A}$ diff rel to prep classes. 5. infrequent neg respon (13.3%)	Limitations: 1. Poor construct validity using "adult bonding behaviors" for children; 1 observ; can't measure "attachment" in 5 min of 1st meeting. 2. Small n for stat analysis; external validity threat. 3. Report confuses % of children with % of behaviors. 4. "Strange" setting may confound preschoolers' beh. 5. "Bonding behaviors" not weighted for saliency.
United States	Exper gp = 10 sibs Controls = 20 sibs			
Taylor & Kogan (1973)	7 low SES mothers $\bar{c}$ 8 firstborns (1 set twins) 2.5 - 3.5 Y.O. 6 girls; 2 boys	Theor. Framework: psychoanalytic Videotaped lab observ of mo-child interaction: 42 min. (1-2 mos $\bar{a}p$ & 1-2 mos $\bar{p}p$ )	1. Decreased warmth fr both mother and child. 2. Mothers yamed, fatigued, responded $\bar{c}$ $\uparrow$ effort to child. 3. 6 dyads $\downarrow$ patterning; 2 dyads $\uparrow$ patterning.	Strengths: 1. Incl. both $\bar{a}p$ & $\bar{p}p$ . 2. Videotape provides perm data; permits reliab check $\bar{c}$ others 3. age-range is homogeneous for statistical analysis. Limitations: 1. Timing $\bar{p}p$ varies too greatly; (wide diff betw 1-2 mos. $\bar{p}p$ ) 2. Limited sample for stat anal. 3. Observ only; conseq. unable to detect meanings of beh. 4. Analysis discounted outliers.
Psychiatry				
United States				

TABLE 1a, cont.: SIBLING RESPONSE TO THE BABY

STUDY-FIELD-COUNTRY	SAMPLE	METHODS/ANALYSIS	RESULTS	COMMENTS
Madelman & Begun (1982)	53 mothers & firstborn children, 26-66 mos.	Theor. perspective: Life-span development/beh. Pre & post design: 3-4 weeks ap & 3-4 weeks pp. Multimeasure:	1. T1 → T2 boys ↑ withdraw beh. 2. T1 → T2 girls ↑ indep beh. 3. T1 → T2 boys & girls changed direction on few items; otherwise, little sex diff. 4. Sex of baby not signif. 5. Age & sex effects: younger children ↑ toilet accidents; older children ↓ toilet acci; young children needed ↑ help 6. Girls ↑ proximity maintenance & ↓ on apathy. 7. Much sib involvement T2 baby: clothing (71%), bathing (42%), hugging/holding (68%), & entertaining baby (52%). 8. Prelim. anal. of control gp: @ T2: only signif. diff = Exper gp talked about babies more. T1 - T2 change scores: *Exper gp. improved much, & control gp. worsened sl.	Strengths: 1. Multimeasure. 2. Home setting observations. 3. 5-pt. beh. scale ↑ possible variance. 4. Detailed rept of res protocol 5. Interobserv reliab = .85-.93. 6. Excel. stat analysis T adequate sample size. 7. Two forms of controls: Children act as own controls. Matched control group. Weaknesses: 1. Too short time period; only 2 data collect. times. 2. Only incl mothers/firstborns (not infants & fathers). 3. Factor analysis interesting, but using 26 pt. beh scale & only 53 children, highly unstable T such small sample.
Human Development United States	17 matched controls (in progress)	Open-ended questionnaire. 26 item beh rating 5-pt. scale Observer global ratings (home) Observ. child in doll play Analysis: Multivariate analysis: T1 & T2 changes, by age & gender. Factor analysis of 26 pt beh scale. Coded essay questions; then chi square.		

TABLE 1b: SIBLING RESPONSE TO THE BABY (DUNN AND KENDRICK)

STUDY-FIELD-COUNTRY	SAMPLE	METHODS/ANALYSIS	RESULTS	COMMENTS
Dunn & Kendrick 1979; 1980a, 1980b; 1981; 1982a; 1982b; 1982c	40 mother-firstborn- inf triads Firstborn ages 7 time of birth: 18-43 mos. (Median = 25 mos)	T1 = 1-3 months prior to birth: 2 prebirth observ. in home (mother, father, child) Interview Rating $\bar{c}$ temperament quest  T2 = 2 weeks postbirth: Observ: inf::mother::sib. (included feeding) = 3 weeks postbirth: Observ: same +/- father. Interview  T3 = Second child 8 months old 2 observ: sibs::mother +/- father Interviews Rating $\bar{c}$ temperament quest  T4 = Second child 14 months old 2 observ: sibs::mother +/- father Interviews	Examined variables: age, gender, temperament, interaction: mo::inf::sib, mo::sib, sib::inf, and mo-sib::inf, mo-inf::sib. sib-inf communication styles. attachment. 2-3 weeks: >50% reported "more mature beh" Changes in mo::sib.interaction: ↑ confront; ↓ md initiating; ↑ prohibit; ↓ mat attn & play. When mo busy $\bar{c}$ infant: ↑ confront; ↑ pos. interact; When mo NOT busy $\bar{c}$ infant: ↓ attn. to sib. Child's withdrawal correl $\bar{c}$ temperament, sex, mo's state. Sleeping problems correl $\bar{c}$ : temperament & mat interaction Clinging - ↑ in younger sibs & correl $\bar{c}$ age & temperament Irritating beh to baby ↑ $\bar{c}$ bottle-feed. & mat. prohibit. 8 months: ↑ md involvement (closeness) $\bar{c}$ sib → ↑ hostile sib relation. Pos sib interact: 8%-95%, M=56% Neg sib interact: 0%-80%, M=27%	1. Longitudinal (2 years+). 2. Carefully designed study. 3. Home setting observations. 4. Multiple visits for each time sampling. 5. Multiple sources of data: Interviews, instruments, observations, tape-recordings. 6. Multi-variate study; multiple regression used effectively to determine interacting, over-lapping effects. 7. Studied family interaction sequences as well as family structure variables. 8. High reliability (between observers & betw. methods). 9. Tested multiple alternative hypotheses throughout study. 10. Open to insights from un- anticipated data; e.g. noting poss. of "regressive" beh being confounded by "imitative" beh. (eg. use of pacifier). 11. Limitations: lack of inclusion of father data in analysis. Other limitations built into study deliberately: age, sample size, homogeneous cultural factors, etc.
Dunn, Kendrick, & MacNamee 1981				
Dunn & Munn 1985	Firstborn sex: 21 boys 19 girls			
Kendrick & Dunn 1980; 1982; 1983	Sib dyads, gender: 21 diff-sex dyads 19 same-sex dyads			
Stillwell & Dunn 1985				
Child Development United Kingdom		Reliability studies compared mother ratings of temperament $\bar{c}$ dir. observ by researcher = .81-.90 (except on "activity" = .57, mothers rated children more active than observer did.)		

TABLE 1b: SIBLING RESPONSE TO THE BABY (DUNN AND KENDRICK)

STUDY-FIELD-COUNTRY	SAMPLE	METHODS/ANALYSIS	RESULTS	COMMENTS
Dunn & Munn:	2 home observations: when second child = 14, 16, 18, 21, & 24 months old (six families); 2 home observations: when second child = 18 & 24 months (43 families)	Observe coded mother::sibs re: Conflict $\bar{c}$ sibling Conflict $\bar{c}$ mother Conflict betw mother/sibling Child's resp to mo/sib conflict	14 months: Older child modified speech to commun. $\bar{c}$ inf appropriately. Synchrony in sib-inf similar to parent-inf. Pos sib interactions: M=40% Neg sib interactions: M=39% $\uparrow$ pos social beh in same-sex pairs than diff-sex pairs. Stability in pos interactions from 8-14 months; less stability in negative beh. High freq. of imitation was neg correl $\bar{c}$ hitting/pushing. Sibs interact BOTH pos/neg. Younger sib missed older, & went to older sib for comfort & support; showed concern when mo. angry at sib. Most important difference--correl with affectionate and pos. sib behavior at 2-3 weeks, 8 months, 14 mos., & when elder was 6 y.o. = mothers who talk about inf's cues & intentions, & invite sib to share in care of inf.	
Stillwell & Dunn:	25 children (firstborns) (40 in original study) 6 y.o. 2 time of study Children interviewed: 4 X 2 school & 1 X 2 home Mothers interviewed: 2 X 2 home.			



TABLE 1c: SIBLING RESPONSE TO THE BABY (KREPPNER, PAULSEN, AND SCHEUTZE)

STUDY-FIELD-COUNTRY	SAMPLE	METHODS/ANALYSIS	RESULTS	COMMENTS
Kreppner, Paulsen, & Scheutze (1982)	16 Families, preg. 2 <sup>nd</sup> second child. Firstborn: <4 y.o. 11 mos. - 3.5 y.o.	Theor. Approach: Family Systems, Developmental, Socialization Theory Longitudinal: 2 years. Home visits: 2-4 months ap: detailed biographical interview 2 weeks for 3 months pp. & 2 month up to 2 years pp. 2-4 hour visits 30-60 min. videotape obsv 2 8 mos. & 2 yrs: interviews on childrearing practices.	Theoretical model emerged: 3 phases of family change occur in sl. delayed synchrony with inf. development; family structure & process changes rel to inf capabilities. 1.D. parent strategies for facilitating sib rel. PHASE I: 0-8 months. Restructuring wkload. 1.D. 3 patterns of parental teamwork. Sib kept in former position; ambiguous role; some "differentiation" by child. PHASE II: 9-12 months. Inf. crawling-walking, able to communicate. Increased sib conflict. Parents shift to teach rules to inf. as well as sib. 1.D. 2 modes sib response rel to age and sex of child. Need autonomous sib rel. PHASE III: 17-24 mos. 2 major family sub-systems emerge: "parents" & "child." Sibs see selves as unit.	1. Unit of analysis = whole family. 2. Longitudinal (2+ years) covering transitional points for family. 3. Multiple observations & multiple methods data collect. 4. Looked at interrelationship of individual & family level. 5. Context: home setting. 6. Addressed val & reliab: some observer; team analysis; feedback fr subjects re: poss bias due to reactive effects. showed tapes to families as feedback strategy @ 4 mos. 7. Development of theoretical model of family change from triads to tetrads.
Scheutze (1986)		Analysis: Hermeneutic method, patterns emerge from data as researcher is in constant contact with material; analysis of family patterns within families across time, & betw families. Looked for continuity and change.		

TABLE 11: SIBLING VISITING STUDIES

STUDY-FIELD-COUNTRY	SAMPLE	METHODS/ANALYSIS	RESULTS	COMMENTS
Ballard, Maloney, Shank, Hollister (1984) Medicine/Nursing United States	38 families $\bar{x}$ 57 children Exper = 31 (2-19 y.o.) Control = 26 (2-16 y.o.)	Exper. gp. visited in IDN during study period Control gp. delayed visits until study completed Measurement: 1. Missouri beh. list 2. Modified Vernon Ques. 3. Family changes questionnaire 4. Semi-structure interview $\bar{x}$ fam & child re: IDN visit. 5. Newborn symptom log to detect infections 6. Inf. cultures. 7. Observ. families in IDN. Stat. analysis: Correl. instr results $\bar{x}$ visit. Qual anal: observ & psych interv	1. Overall beh. & anxiety of both gps. did not get worse. 2. Child/family function improved in both gps. $p < .001$ . 3. $\uparrow$ Parental well-being in visiting group. 4. $\downarrow$ upset in children related to visits; signif. evidence of benefit for some. 5. $\downarrow$ difference in infection. 6. I.D. & descr. diff beh responses in IDN by age groups.	Strengths: 1. Randomized, controlled prospective study. 2. Multiple measures, using observ + interv + instruments. 3. Valuable data on beh in IDN 4. wide age range = limitation for stat analysis, but helpful for comparing responses/ages. Limitations: 1. "Yes-No" quest. - $\downarrow$ poss. respons. variance. 2. Faulty to c.f. reference point of sib visit vis-a-vis premature birth. 3. Control parents looking forward to future visits. Poss. Hawthorne effects?
Schwab, Tolbert, Bagnato, Malsels (1983) medicine & psychiatry United States	16 sibs: 3.8 - 7.25 y.o. 8 = visiting gp. (mean = 5.2 y.o.) 8 = non-visit gp. (mean = 5.15 y.o.)	Pre- & post- design to determine effects of IDN visiting on child beh. T1 = 2 days $\bar{p}\bar{p}$ Parent questionnaire re: sib $\bar{a}\bar{p}$ beh. (retrospective) T2 = 21 week $\bar{p}\bar{p}$ Ques. re: sib $\bar{p}\bar{p}$ beh. (prior to visiting) T3 = 6-10 days $\bar{p}\bar{p}$ Exper gp (5): IDN visit Control gp (6): Hosp visit Interview T4 = 1 week after visit Questionnaire Interview	1. 2 gps: $\bar{a}$ signif beh change 2. Exper gp: 5/5 who visited were pos re: baby coming home & described hosp pos. 3. Control gp: 2/6 ambivalent about baby coming home; 4/6 descr hosp neg/fearful. 4. Staff and parents ALL pos. re: IDN visits.	Strengths: 1. Random assignment & comparable gps. 2. Very valuable descriptions of children's beh in IDN. 3. Explicit descr. of protocol 4. Modified "Trause" quest. by weighting beh. Limitations: 1. Small sample for stat anal. 2. Attrition at T3. 3. ? Validity of beh. tool. 4. Use of beh quest, not home observ or open-ended inter. 5. Poss neg. effect on control gp: coming to hosp, but not allowed to visit baby. 6. Poss. confounding by interviewer accomp. in IDN. 7. ....

STUDY-FIELD-COUNTRY	SAMPLE	METHODS/ANALYSIS	RESULTS	COMMENTS
Field & Reite (1984)	16 children: 22-60 mos. (Aver. = 38 mos.) c mother or father	Theor. framework: Sep anxiety T1 = 0 10 days ap Home observ & videotaped play T 1 parent (usually mother) Child monitored for activity level & HR. Videotaped sleep beh. (coded Brazelton) + monitored VS T2 = 1-2 days pp. Same as T1 (c father) plus parent questionnaire T3 = 10 days p discharge. Same as T1, plus different parent questionnaire. Coded video observations on sep. anxiety measurements & parent/child affect.	1. ↑ fantasy play over 3 obs. 2. ↓ eye contact & reciprocity betw. parent & child. 3. T2 → T3: change in affect, fr. smiling to depressed. 4. T2: ↑ child fussiness, aggressiveness. 5. T2: ↑ sleep time; ↑ waking 0 noc. T3: ret. to baseline 6. T2: ↑ noc crying. T3: did not ret. to baseline. 7. T2 → T3: ↑ clinging. All findings consistent with separation depression in non-human primates. Even with hosp. visiting & fa. involvement, upset occurred.	Strengths: 1. Obs. in home setting. 2. Incl. ap, intra, & pp. 3. Adds valuable phys. data. 4. Play equip. consistent to c.f. across times. 5. Interrater reliab: .87-.91. 6. Related findings to prev. res on non-human primates. 7. Multimethod corroboration. Limitations: 1. Tools biased toward hostile & regress. beh. 2. Lacks typical social interaction data on family. 3. Fa. T child at T2 data used to compare T mo. 0 T1 & T3. May confound obser results. 4. Small sample size for stat analysis: had to delete age & sex variables in analysis
Trause, Voos, Rudd, Klaus, Kennell, & Boslett (1981)	31 fam T toddlers, 1-3.5 y.o. 17 Exper (visiting) 14 control (non-visiting)	Theor. perspect: sep anxiety? T1 = 2-4 weeks ap Home observation + beh. questionnaire. T2 = in hosp. 0 discharge Videotaped 3 min. of family reunion (23/31 toddlers). Infant cultures. T3 = 1-2 weeks pp Home observation + beh. questionnaire.	1. ↑ pp maternal use of angry and stern commands (p.005). 2. T2: Non-visiting children demonstrated ↑ avoidance beh. 3. T2: Visiting children more responsive to baby & mother. 4. Children (1.5 y.o. → ↑ proximity seeking at home. 5. Children >1.5 y.o. ↓ change. 6. Hosp visit → ↓ diff pp beh. 7. 54% reported 2 or more beh. probs. (usually sleep changes & ↑ need for attention). 8. Some report improvement in certain beh (eg. eating). 9. T3: ↑ proximity seeking beh 10. Mothers reported children enjoy baby, want to help, show baby toys. 11. ↓ ↑ infect assoc T visit.	Strengths: 1. Random assignment to gps. 2. Included both ap & pp data collection. 3. Observ. home setting. Limitations: 1. Amt of visiting varied in exper gp. from 1-3 visits. 2. All mothers wanted visits (Reports skewed by mat. disappointment?) 3. Questionnaire biased--looks only for regress/neg beh. 4. Home observ codes incl only neg beh. No pos beh codes 5. Lack of T2 data for 25% of sample. 6. T2 = Only 3 min.; strange setting for control gp. but not for exper gp. ? Validity.
Medicine & Nursing United States				

TABLE II: SIBLING VISITING STUDIES

STUDY-FIELD-COUNTRY	SAMPLE	METHODS/ANALYSIS	RESULTS	COMMENTS
Komba & Schvirian (1985) Nursing United States	PHASE I: 44 infants 23 sib visits 21 0 sib visits	PHASE I: nasal & umbil. cultures (for staph and strep) 7 admission & discharge.	1. $\chi^2$ signif. diff in cultures for visiting & control gps. (Phase II: controls had more colonization, but $\chi^2$ stat sig. Conclusion: Sib-inf contact does not increase colonization rate.	Strengths: 1. Random assign not only to groups but also to nursery (to control for personnel). 3. Good sample sizes. 4. Only incl. infs in exper gp who DID have sib contact. Phase II: 1. Added 2 more factors which would increase chances of finding significance.
	PHASE II: 66 infants 33 sib visits 33 0 sib visits (Sibs: 1-12 y.o.)	PHASE II: same plus culture immed. prior to sib visit & amt of sib contact defined & increased.		
Umphenour (1980) Nursing United States	214 infants--prior to sib visiting policy.	Looked for bact. colonization assoc with new sib visiting policy.	Change in sib visiting policy had $\chi^2$ impact on bact colonization of infants.	1. Sequential cohort--not concurrent. Doesn't address history effects (eg weather, personnel) but provides for large sample. 2. Unclear how much "treatment" there was--whether sibs were actually visiting & whom. (Experimental group included babies who had no sibs.)
	162 infants--after sib visiting began	Nasal & umbilical cultures on adm to & disch from nursery		
	infants included in study even if no sib visited	Non-equivalent (sequential) control gp design, pre- & posttested. "Treatment" = change in visiting policy.		
Mranesh (1982) Nursing United States	Control = 20 infants Exper = 20 infants (visited by sibs)	Retrospective chart review of disch cultures on infants. (Permission obtained from mothers for chart review.) Posttest only, design. 2-way tabulation (chi square).	1. No difference in bact. colonization rates of infants visited & controls. 2. Sibling visiting does not increase bact colonization.	1. Adequate sample size. 2. Exper. gp only included inf who WERE visited by sibs. 3. Chart review is simple way to evaluate policy, but does not randomize groups.

TABLE III: SIBLING PARTICIPATION IN BIRTH

STUDY-FIELD-COUNTRY	SAMPLE	METHODS/ANALYSIS	RESULTS	COMMENTS
Anderson (1981b)	Study group: 25 families c home births. 43 children = 2-16 yr (36n = 2-6 y.o.)	Retrospective interviews over 1 year's time; maternal report. Re: 1. activities to prepare child 2. sib's response at birth 3. sib's respsns to inf/parents 4. longterm inf/sib relations.	1. 22/25 sibs rated as reacting pos. to home birth 2. 2 concerned with blood and noise; 1 taken out against her will--cried. 3. All children reported as reaching out to touch baby. 4. ↑ in conflict at 1 yr. when baby became more mobile. 5. ↓ diff. between study & comparison gps at 1 yr. pp.	1. Single interview, done at diff times $\bar{p}$ $\bar{c}$ diff fam. 2. Comparison gp not comparable on values, childrearing patterns, separation exper. 3. As a descr study, provides info. re: prep & mat rept of beh; but ↓ gener poss; ↓ theoretical contrib except as "mother's perception".
Nursing United States	Comparison gp: 25 families c hosp births. 39 children = 1-13 yr (25n = 2-6 y.o.)			
Anderson (1981a)	Sample group: 16 families $\bar{c}$ 31 children at birth.	Asked children to draw: 1. birth of a baby 2. their family.	Pictures by children present at birth: more colors. more people-focused. Pictures by children not present at birth: more technology focused rarely included people less positive mood in pictures.	1. Projective techniques used alone are esp. subject to res bias on interpretation. 2. ↓ earlier drawings to cf. 3. Drawings reflect child's experience--can't make other generalizations.
Nursing United States	Comparison gp: 17 families $\bar{c}$ 27 children not present at birth.			

TABLE III: SIBLING PARTICIPATION IN BIRTH

STUDY-FIELD-COUNTRY	SAMPLE	METHODS/ANALYSIS	RESULTS	COMMENTS
Daniels (1983) Nursing United States	35 children, parents, midwives, support persons, who were present at birth.	F.U. study of sibs @ birth program. 1. Tape recorded interviews @ children at home; drew pictures, played c pregnant doll, looked @ family birth pictures. 2. Mat. report; open interview 3. Pat. report (most--not all) 4. Interviews @ DM's @ births 5. Interviews @ support pers. Analysis: Devised 14 pt. "ideal" situation against which to measure children's experience	1. 5 viewpts didn't always agree: Mat rept. long, detailed, always positive. Pat rept. positive @ some reservations. Midwives: detailed observ eg. noted when child was "forgotten," "left room alot." Support persons expressed insight into child's feelings. 2. Young sibs and grandmothers endowed inf. @ need to relate to them. 3. All children (ages 5-15) tho't birth would be too much for children younger than they but tho't they were old enough. Investigator reports that children feel close, included, frightened, o'whelmed, & joyful	Strengths: 1. Multiple methods. 2. Multiple sources of data. Excel qualitative data obt. 3. Collected data fr. children; not only mat. report. 4. Staff interviews as well as family interviews. 5. Rel: findings to practice: Prep. for support persons. Age guidelines. Prep. for children. Limitations: 1. Good comparison data, but didn't use qual. data to best advantage, to find out "why" or "how." 2. Tried to convert rich qual. data to quant & missed oppor for theory development. 3. 14 pt. scale not "weighted" for salience--conseq. threat to validity.
Lumley (1983) Obstetrics? Australia	Mothers of 22 children present @ birth. Matched controls for sex/age.	100 quests mailed, @ 2 mos. @, to families who considered children at birth; 80% returned. Quest: re: partic. in inf care, affectionate, hostile, competitive, or regressive beh. All replies analyzed. 22 @ children @ birth, matched @ 22 controls, & compared.	1. Analysis simplistic: incl. frequencies, but few correl @ beh & other variables. 2. Not salient study--results inconclusive. 3. Face validity of tool, questionable, but modified 2-pt scale to 4-pt. (may @ reliability.) 4. @ info on pre-existing fam data, diff betw families who did/didn't have sibs present 5. Single source of data--(tool @ observ, @ @ measurement.	1. Fewer at birth than planned. 2. More girls than boys present. 3. @ diff in prep: present or not 4. Generally pos beh reported @ home @ 2 mos. @. 5. 3-4 y.o. @ affectionate & @ regressive beh. 6. @ hostile beh rept in children @ present @ birth, but not analyzed for age, sex. 7. Both ggs. reported: minimal disrupt; help @ inf; rare hostile beh, & only occas competitive or regressive beh.

TABLE III: SIBLING PARTICIPATION IN BIRTH

STUDY-FIELD-COUNTRY	SAMPLE	METHODS/ANALYSIS	RESULTS	COMMENTS
Gomez (1983) Nursing United States	11 families 12 children ages 3-10 y.o.	Exploratory, descriptive, re: Children at Birth. T1 Parent interviews ap re: rationale, dec-making, plans for birth. T2 Birth observations T3 Interview 3 weeks pp. c support persons.	<ol style="list-style-type: none"> <li>1. I.D. reasons parents incl. children at birth.</li> <li>2. Descr. sib's immed response @ birth: all moved toward inf.</li> <li>3. Descr. sib's later response @ birth: children became quiet alert or active alert.</li> <li>4. Postpartum themes: family grouping, family membership, emerging roles, and birth as a positive event.</li> </ol>	<p>Strengths:</p> <ol style="list-style-type: none"> <li>1. Valuable descriptive data.</li> <li>2. 3 time samples <math>\bar{a}</math>, <math>\bar{a}</math>, <math>\bar{p}</math>.</li> <li>3. Covers areas not usually covered (eg. dec-making)</li> <li>4. Looked for themes fr. pp interviews--some attempt concept identification.</li> <li>5. Multiple sources: mo, fa, child, support persons.</li> </ol> <p>Limitations:</p> <ol style="list-style-type: none"> <li>1. Limited observations; not correl. to child's devel. level.</li> <li>2. Limited theoretical devel., limited comparisons, etc.</li> </ol>
Mehl, Brendsel, Peterson (1977) medicine, nursing, & child development United States	Parents of 20 sibs present @ birth. Parents of 20 sibs not present @ birth. Sibs = 2-14 y.o.	Explor. re: Children @ birth Parent interviews. Some birth observations. Play observations.	<ol style="list-style-type: none"> <li>1. Attitudes &amp; sexual values of 2 groups differ greatly.</li> <li>2. Children present @ birth had more accurate ideas about sex &amp; birth.</li> </ol>	<ol style="list-style-type: none"> <li>1. Res protocol not reported.</li> <li>2. Inconclusive--cannot say birth had any impact, but parents have very diff views.</li> <li>3. Researchers imply that birth attendance made difference in children's knowledge &amp; beliefs, but groups not comparable. i.e. serious validity threats.</li> </ol>

TABLE III: SIBLING PARTICIPATION IN BIRTH

STUDY-FIELD-COUNTRY	SAMPLE	METHODS/ANALYSIS	RESULTS	COMMENTS
Leonard, Irvin, Ballard, Ferris, Clyman	40 children who attended births: 1-3 y.o. = 8 n 4-6 y.o. = 18 n 7-9 y.o. = 10 n 10-14 y.o. = 4 n	Exploratory, descriptive re: Children at birth All child. had birth prep class Rated by RN's during births re: Gough Adjective Checklist & degree of involvement. (11 not in birthm 2 birth, 8 of those by self-initiation)	1. Descr. children's beh. during labor and del. 2. Several slept through. 3. "None expr. distress, but some parts may have been distressing." 4. More girls than boys at birth. 5. Children attended to birth & inf; then resumed usual activ.	1. Wide age spread, properly used for description, not generalization. 2. Report lack detail: descr of beh. = objective & colorless. 3. $\beta$ info re: appropriateness of tool for this event. 4. Interpret child's beh $\bar{x}$ asking children for data. 5. methodological limitations.
Irvin, Leonard, Clyman, Ballard (1981)	18 families whose children (22n) had attended births	Semi-structured interviews ̄ parents whose children were 2 birth 1-4 years prev.		1. Abstract only available.
(as above)				



**APPENDIX B**

## SAMPLE QUESTIONS FOR CHILDREN'S PRENATAL INTERVIEW

Do you remember when you first heard about the baby?

(What happened? Where were you? What did they say?)

How did you feel when you first heard about it? What did you say?

Tell me what you know about babies.

What are babies like?

What do they do? (How did you learn about that?)

What would you say are the good things about babies?

...the not so good things?

Is this baby going to be a girl or a boy?

Would you prefer a baby brother or a baby sister?

Why would you prefer \_\_\_\_\_?

Where is the baby going to sleep? Who decided that?

(Where would you like the baby to sleep? Why?)

Do you have a friend your age that doesn't have a baby in her family?

If \_\_\_\_\_ came up and said, "I just found out that my mom is going to have a baby!" what would you say to her? What do you think she should know? Do you think she might be worried about anything?

Sometimes used only postpartum:

If I were to ask you, "What are the GOOD things about being a big brother?" what would you say?

What would you say if I asked, "What are the WORST things about being a big brother?" (or big sister)

**SAMPLE QUESTIONS FOR PARENTS' PRENATAL INTERVIEW**

When did you tell your child about the baby?

How did you tell them?

How did they respond to the news?

What have you told them it will be like after the baby arrives? (eg., books read, messages given about babies)

Has your child asked any questions about the pregnancy/baby?

Has your child been involved in the pregnancy? If so, How? (eg., fetal movement, preparing baby's room, choosing names)

What other ways have you been preparing him/her for the baby's arrival?

Where will the baby sleep?

What went into the decision?

Do you know whether this baby is a boy or a girl? (prenatal diagnosis?)

Have you picked out names? Who chose the names?

How do you think your child will respond to the new baby? (Why?)

What are your plans for your child while you are in the hospital? When do you expect to have them meet the baby?

How many children were in your own family when you grew up?

(ask each parent; ask number, spacing, gender, etc.)

Which of your siblings do you feel closest to?

What do you think contributed to that?

Do you think that your experience as a sibling in your own family has influenced the way that you are handling your own children?

## SAMPLE QUESTIONS FOR CHILDREN'S POSTPARTUM INTERVIEWS

What has it been like having a baby in the family? or

What has happened since I was last here talking with you?

Tell me about the baby?

What does he do? (children usually mention 'crying')

(follow-up questions: Why do babies cry? What do you do when the baby cries? What does the baby do when you do that?)

What else does the baby do?

What do you do with the baby?

Do you help with her care? What things do you do?

How is it being a big sister?

What is the BEST thing about being a big sister?

What is the WORST thing about being a big sister?

Does the baby know who you are? How can you tell?

What if your friend found out she was going to be a big sister?

Now that you have been a big sister for \_\_\_\_\_ months, what advice would you give to your friend? What would you tell her? What do you think she should know?

Have you ever made up stories? I'll start it, and you help me as we go along, okay? Once upon a time, there was a (boy, girl) who was (age of child) and his/her name was.... and in his family there was a mother, and.... and (boy, girl) liked to do lots of things. He liked to... And one day he said..... (etc.)

**SAMPLE QUESTIONS FOR POSTPARTUM CHILDREN'S INTERVIEWS, CONT'**

[Questions used later, especially with older school age children:]

What changes in the baby have you noticed over the last \_\_\_\_ months?

(Things she is doing, things you are doing with her, anything like that.)

Do you think babies change families? In what way?

Has your family changed since the baby came?

I'm really trying to figure out how school age children and babies get to know each other and what it feels like from the school age child's point of view.

What things HELP children and babies get to know each other?

How do you think that a school age brother is different than other ages? (for example, how would you have reacted differently if you were 4 years old instead of 8 years old? What if you were 13 years old?)

I'm trying to figure out what it means to a school age child to be a "big sister." How would you describe what it means to be an older sister?

If there were anything you could change since the baby arrived, what would it be?

**SAMPLE QUESTIONS FOR POSTPARTUM PARENTS' INTERVIEWS**

What has it been like since the baby came home?

(Usually open with a very broad question--hear whatever is salient)

How has (school age child) responded to the baby?

(follow up with questions to understand how parents understand the older child's reaction, reasons, etc.)

Has (older child) responded like you expected to the baby?

In what way? In what way, not?

Has (child) been involved in taking care of the baby?

Later, at or near final visit:

I am trying to figure out how school age children are different in their relationship with the baby than children of other ages. How do you think school age children respond differently from, say, preschoolers? (What is different about relationships between school age children and babies and between preschoolers and infants? How would you explain those differences? What accounts for the differences?)

What--or who--is responsible for how sibling relationships turn out? What determines whether siblings are close or not close?

If another family with school age children the ages of your were going to have another baby, what advice would you give them, now that you have had several months of experience?

## Exit interview, demographic data:

Today's date: \_\_\_\_\_

Father's age: \_\_\_\_\_

Mother's age: \_\_\_\_\_

Length of couple's relationship \_\_\_\_\_

Length of couple's marriage \_\_\_\_\_

Previously married: Husband? \_\_\_\_\_ Wife? \_\_\_\_\_

Gender and birthdates of children (indicate \* children by previous marriage):

_____	_____
_____	_____
_____	_____
_____	_____

Father's educational background (area of study, highest academic level attained):

Mother's educational background (area of study, highest academic level attained):

Father's occupation outside of home:

Mother's occupation outside of home:

Family's own estimation of their economic level:

Low income family	_____
Mod-low income family	_____
Middle income family	_____
Middle-upper income family	_____
Higher income family	_____
Very high income family	_____

**APPENDIX C**



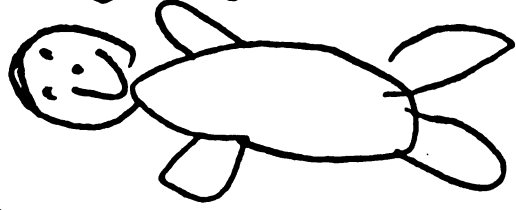
PAPA

6 y.o. ♂



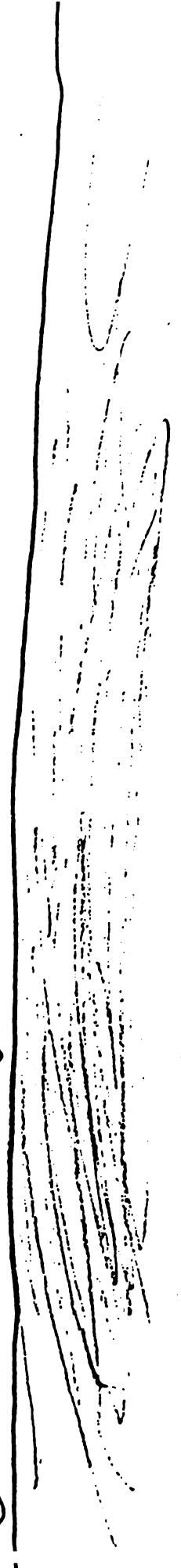
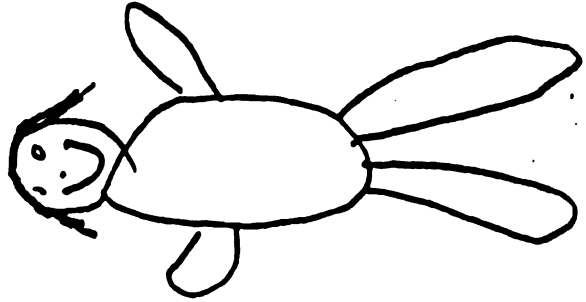
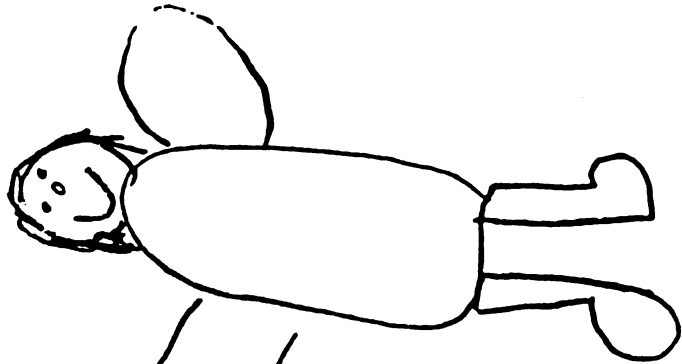
Infant

4 y.o. ♂ → 6 1/2 wks



MAMA

9 y.o. ♀

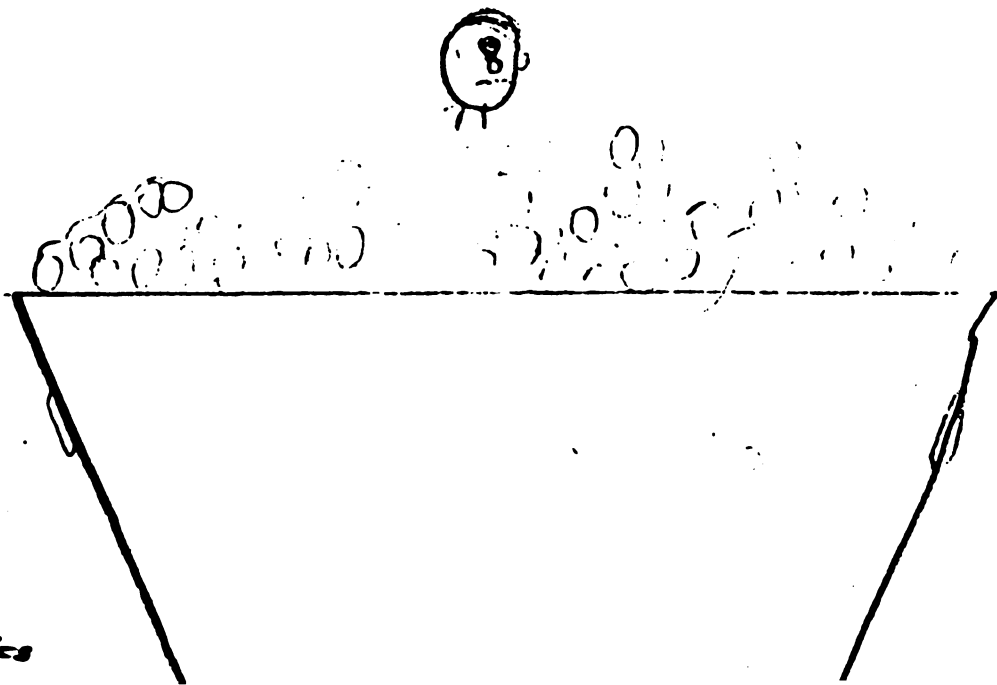


The baby weighs

8-7-8

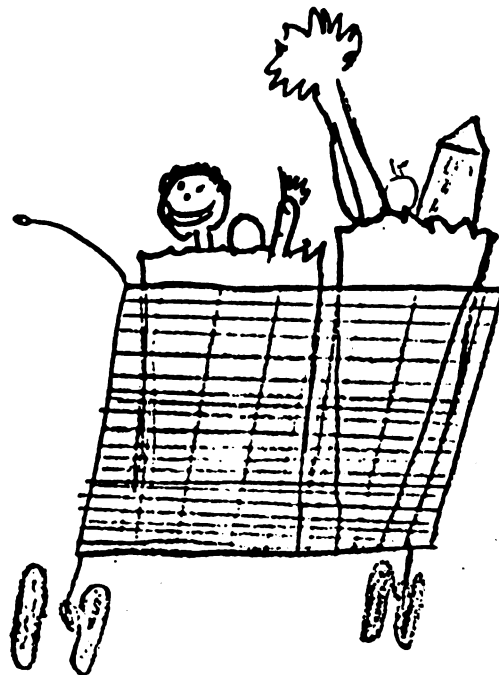
57lb. 6oz

Today the baby had his  
first bath and he hated it!



8 yo. ♂  
Infant 2 weeks

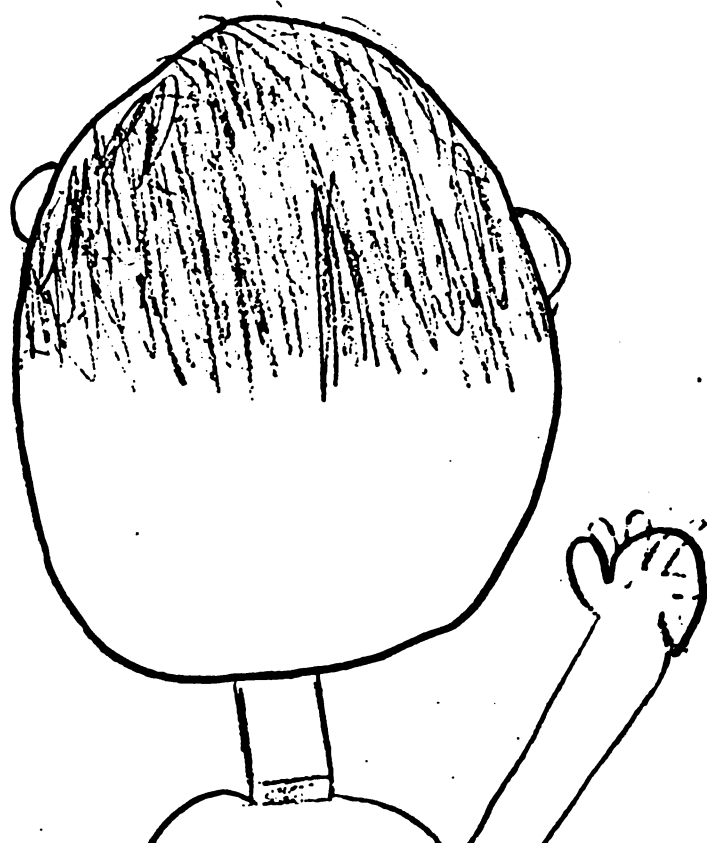
I share the room with my  
brother. Today was his  
first trip to the grocery store



8 y.o. ♂  
Infant = 1 mo.

Aug 26

Today the baby discovered  
his hand.



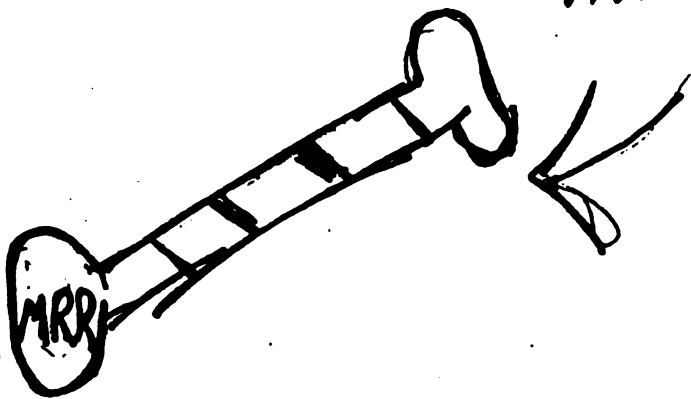
8 yo. boy  
Infants 10

Today while my Mom was walking the dog I picked up Mikey and he grabbed on to my hair! I thought maybe he's ready for a rattle.

And He WAS!!!



I think it looks like a barebell



9 y.o. ♀  
Infant 5 weeks



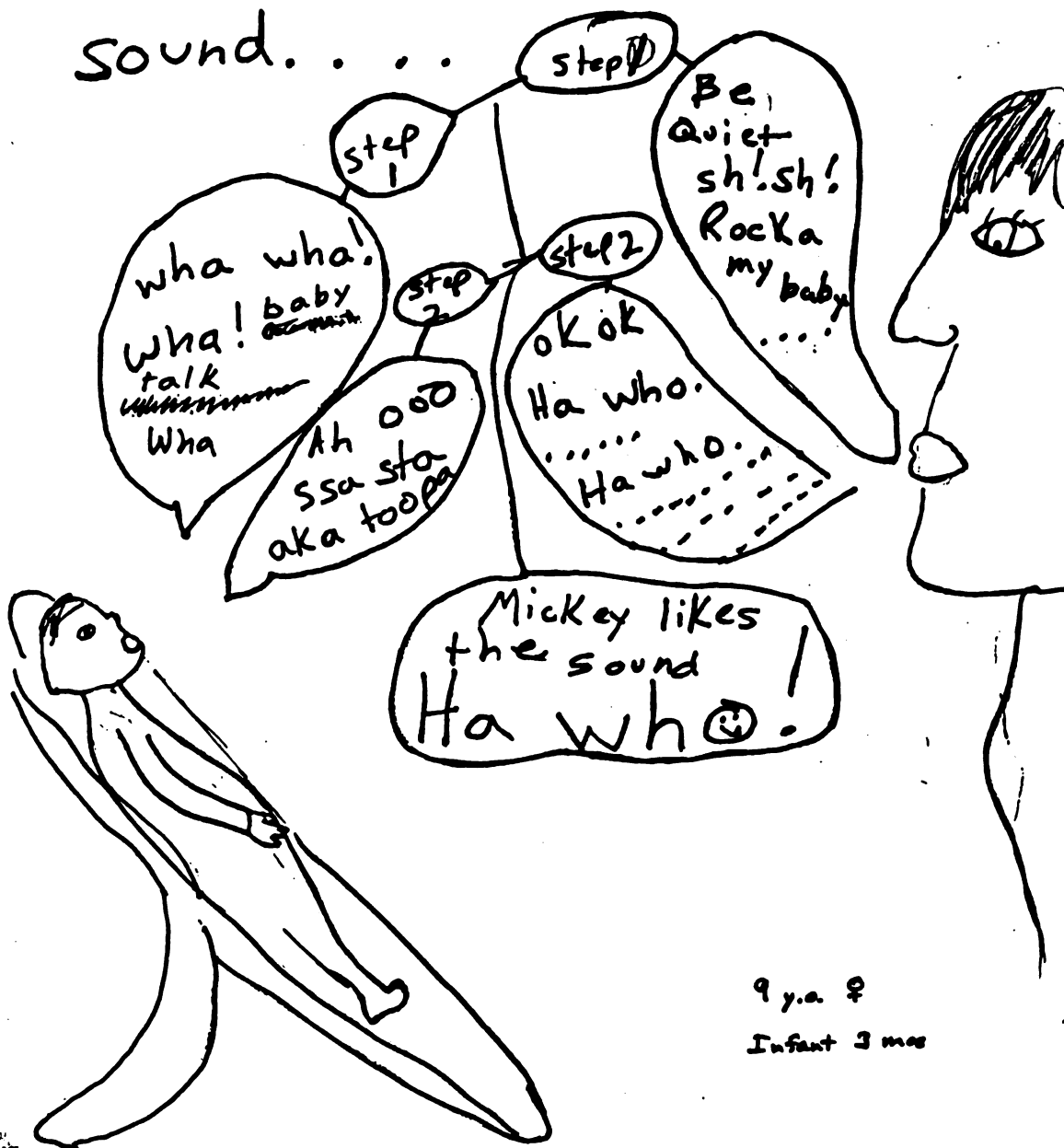
I like  
hearing compliments  
to Mikey because it  
makes me feel good that

I am his sister.

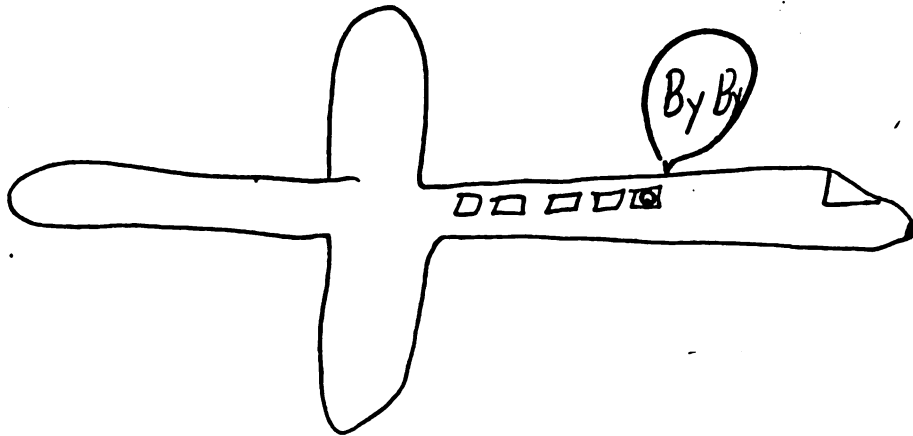
Mike is the best baby  
in our family



Mickey always stops  
crying when he hears this  
sound. . . .



Mikey is going on an airplane  
for the first time. I don't think  
he will like it



9 yo. ♀  
Infant = 3 mos.





When Michael drinks  
a bottle he always  
pushes the persons  
hand away when he  
is done.



9yo ♀  
Infant 3.5 mos.

**APPENDIX D**

DIVISION OF HUMAN & ENVIRONMENTAL  
PROTECTION COMMITTEES, BOX 0616  
OFFICE OF RESEARCH AFFAIRS  
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

TO: Katharyn May, D.N.S. / Susan Murphy, R.N., M.S. 238  
N-411-Y / 2043 El Sereno Ave.; Los Altos, CA 94022

RE: The Early Development of Sibling Relationships in Childbearing Families

The UCSF Committee on Human Research (an IRB holding DHHS assurance #M-1169) has approved the above request to involve humans as research subjects.

APPROVAL NUMBER: 940820-01\* This number is a UCSF CHR number which should be used on all consent forms, correspondence and patient charts.

APPROVAL DATE: May 27, 1987 Full review \_\_\_\_\_  
Expedited review X

EXPIRATION DATE: May 27, 1987 If the project is to continue, it must be renewed by the expiration date. If the number has an asterisk, the short-form renewal process may be used.

SUBMISSION ADDENDA: No \_\_\_\_\_ Yes X A yes indicates that there was correspondence between the Committee and the investigator during review of this submission.

CONDITIONS:

ADVERSE REACTIONS/COMPLICATIONS: All problems having to do with subject safety must be reported to the CHR within five working days.

MODIFICATIONS: All protocol changes involving subjects must have prior CHR approval.

LEGAL NOTICE: The University will defend and indemnify a principal investigator in legal actions arising from research activities involving humans only if the activities had current CHR approval.

QUESTIONS: Please contact the Human and Environmental Protection Committees office at (415) 476-1814 or campus mail stop, box 0616.

Sincerely,  
*Carol S. Viele R.N.M.S.*  
Carol S. Viele, R.N., M.S.  
Chairman  
Committee on Human Research

cc: Contracts and Grants  
Drug Info and Analysis Service  
SPGH \_\_\_\_\_  
VAMC Research Office \_\_\_\_\_

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO  
INFORMATIONAL LETTER AND CONSENT TO BE A RESEARCH SUBJECT

Dear Family,

Thank you for your interest in this study. I am a nurse and graduate student at the University of California Medical Center in San Francisco. Dr. Katharyn May and I are studying the development of sibling relationships when a new baby enters a family with a school-age child. Your family is eligible to participate because you are expecting a new baby and you also have a child who is 5 years of age or older.

The study begins in the 9th month of pregnancy and continues until the new baby is 4 months old. If your family decides to participate, I will come to your home approximately once a month to gather the research information. In order to understand early sibling relationships better, three types of information will be collected in this study:

1. videotaped family observations; 2. anecdotal journal notes; and  
3. informal interviews with the school-age child as well as parents.

1. During my visits I will make a 20-30 minute videotape of everyday family interaction with the children at home. A videotape will also be made of the older child meeting the baby for the first time in the hospital. (At any time, you may request that written notes be done instead of videotaping.) The videotapes and/or observational notes will be analyzed with the hope of obtaining new insights about how sibling relationships develop. If you wish, you may view the tapes while the research is in progress and at the end of the study you will be given copies of the videotapes to keep.

2. You will also be asked to make notes of events and ideas that occur between visits which you see as related to the sibling relationship. These comments may be written in a journal or spoken into a tape recorder, whichever you prefer. (The necessary materials will be provided by the researcher.) I will transcribe your journal notes or taped comments and return the journal or tape to you. The notes will be analyzed for information about sibling relationships and will also guide my interviews with you during home visits.

3. Your school-age child will be asked to participate in no more than three informal, child-oriented interviews. The purpose of these interviews is to understand the experience of the new baby's arrival from the child's point of view. These interviews will be tape-recorded and are intended to be non-threatening and easy for the child. Parent interviews will be based primarily on your journal entries and observations of the children between visits.

There is no direct benefit to you or your family; however, you may find some value in having an opportunity to discuss your own ideas about your children's interactions. We anticipate that the findings from this study will potentially benefit families in the future by helping nurses understand the needs of siblings in childbearing families.

Participation is voluntary; if you consent to be in this study, you may discontinue participation at any time. Although it is difficult to determine precisely the total time that any one family may contribute, it is anticipated that participation would involve 6-10 hours of your family's time over the five month period of the study. It is possible that the experience of being interviewed and/or photographed may result in your feeling embarrassed or uncomfortable and you are free to decline to answer any questions. There is a potential risk of loss of privacy. Confidentiality will be protected as far as is possible under the law and identifying information (such as names) will not be stored with the data. All interview tapes will be erased at the end of the study.

If you have questions or wish to discuss the research with me, I would be glad to talk with you. I can be reached by calling (415) 969-3452. If you have any comments about participation in this study and wish to talk with someone other than the researcher, you may contact the Committee on Human Research which is concerned with protection of volunteers in research projects. You may reach the committee office by calling: (415) 476-1814 between 8 and 5, Monday to Friday, or by writing to the Committee on Human Research, University of California, San Francisco, CA 94143.

\_\_\_\_\_  
Susan Murphy, R.N., M.S., Researcher

\_\_\_\_\_  
date

We give consent for our family to participate in this study.

\_\_\_\_\_  
parents

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO  
CONSENT FOR USE OF PHOTOGRAPHIC DATA

I authorize and give consent to Susan Murphy to photograph me and my immediate family. The term "photograph," as used in this agreement, shall mean videotape or still photography in any format.

I also give consent for her to use the photographs in such manner as she may deem appropriate, for education, research, and scientific purposes, including journal publication and professional presentations. Our name and/or address will not be used in conjunction with any photograph.

\_\_\_\_\_  
parent/guardian/subject

\_\_\_\_\_  
date

\_\_\_\_\_  
Susan Murphy, R.N., M.S., Researcher

Principal Investigator Dr. Katharyn May, D.N.S. University UCSF Faculty  
P.I. Mailing Address 411Y Title Assoc. Prof. Dept. Nursing  
(campus if possible) 411Y P.I.  Phone No. x4442  
Co-Investigator Susan Murphy, DNS Candidate Is the principal investigator  
and Title Susan Murphy, DNS Candidate the sponsor/advisor only? Yes  No   
Co-P.I. Mailing 2043 El Sereno Avenue, Los Altos, CA 94022 Co-P.I.   
Address 2043 El Sereno Avenue, Los Altos, CA 94022 Phone No. (415) 969-3452  
Project The Early Development of Sibling Relationships in Childbearing Families

**INSTRUCTIONS: PLEASE TYPE; SUBMIT**  
-4 COPIES OF THIS TWO-PAGE FORM  
-4 COPIES OF ANY ATTACHMENTS (CONSENT FORMS, QUESTIONNAIRES, ETC.)  
To be safe, allow at least 3 weeks for processing.

**A) The point of this project is (Explain background, rationale, hypothesis, basic design, etc.):**

The purpose of this study is to identify the process of sibling relationship development when a new baby enters a family in which there is an older child. This study will use several field research strategies (section C) for data collection with families, from the ninth month of pregnancy to the fourth month postpartum. Grounded theory analysis will be used to derive, from the data, substantive theory explaining the process of sibling relationship development.

**B) The subject population(s) will be selected (or excluded) on the following criteria (Discuss how access will be gained as well as any problems relevant to special subject populations):**

An initial sample of five expectant families will be selected for this study: The families must be experiencing a normal pregnancy and have a school-age child between 5 and 9 years of age living in the home. (In grounded theory studies it is anticipated that ongoing analysis may indicate a need for theoretical sampling from additional families, although less participation may be needed from them than that required by the original sample.)

Families will be recruited through childbirth resource centers, private physicians, and newspaper advertising in the south San Francisco Bay area. When families are recruited through a physician, a letter will be provided for the doctor to use to notify families of the study, and the families will be given a form letter and phone number through which to respond directly to the investigator. (see attachments)

**C) The following procedures involving humans will be done for purposes of the study (If applicable, include interview themes and questionnaires if not commonly known):** (see attached flexible data collection schedule.)

The following description of data collection procedures represents the most that any family will be asked to participate. The investigator will gather the data during home visits, once prenatally and four times postpartum. Observation will also be done when the older child visits the new baby in the hospital.

In order to identify and understand the development of the sibling relationship from the child's perspective as well as the parents', three different forms of data will be collected:

1. Videotaped family observations: During the home visits, the researcher will make a 20-30 minute videotape of normal, everyday family interaction with the children present. Ideally, the times of the visits will vary so that different family activities are included: feeding times, playing with or bathing the baby, etc. A videotape will also be made of the older child meeting the baby for (continued on p. 1A)

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C) cont.

the first time in the hospital. Videotaped data will be shared with the family so that they can see what has been recorded and can provide feedback on possible reactive effects. At the completion of the study, copies of the videotapes will be given to the families to keep. If at any time a family prefers that written notes be taken instead of videotaping, then field notes will be used instead.

2. Anecdotal journal notes: Families will be asked to make notes between home visits (ad lib) about events and ideas that have to do with the sibling relationship. These notes may be written in a journal or spoken into a tape recorder, whichever the family prefers. (It is anticipated that some families will use the journal very little while others may make more lengthy entries, and such differences are acceptable for the aims of this research.) The written notes (or taped comments) will be analyzed and used as a basis for unstructured interviews with parents at subsequent home visits.

3. Interviews:  
—with child: A maximum of three interviews with the school-age child will be conducted and recorded by the investigator. The purpose of these interviews is to ascertain, from the child's perspective, as much as possible, their subjective experience of the new baby in the family. (Most studies on sibling response to a new baby have relied on maternal report and checklists of negative behaviors, resulting in a limited understanding of the sibling's experience.) Based on the child's age (between 5 & 9), varying approaches will be used in the children's interviews: conversational interviews without the baby present, discussions about the baby while the child is interacting with the infant, and interviews using pictures of babies and families as a "story-telling" focus.  
—with parents: Unstructured interviews with parents will be done to clarify journal entries and parent observations of the children between visits. (One initial interview will be done prenatally in order to obtain background data. See attached guides.)



Investigator: Katharyn May/ Susan Murphy

**D) The risks involved in these procedures and the methods of minimizing the risks, inconveniences, or discomforts are (Include any potential for loss of privacy):**

There is a potential risk of initial discomfort in being observed or videotaped. Efforts will be made to put the family at ease before taping. Previous studies in which videotapes and observation were used found that families become more at ease with videotaping/observations with each visit. Researchers have also found it helpful to spend about 15 minutes in unrecorded informal conversation prior to and after the observation period and that will be done in this study.

There is a potential risk of loss of privacy. Confidentiality of subjects will be maintained as much as possible under the law, and no identifying information will be stored with the data (such as names). A separate consent form will be used to request permission for use of visual data. (see attached)

Participation in all interviews and observations is voluntary. Families may refuse to answer any questions and may withdraw at any time. This will be explained to the children as well as parents.

**E) Describe the anticipated benefits, if any, to subjects, and the importance of the knowledge that may reasonably be expected to result:**

Participation in the study is not expected to provide any direct benefit to families, although some families may find some value in discussing their ideas and feelings about sibling interactions.

In their work with childbearing families, nurses and physicians are often called upon to deal with parental concerns regarding sibling adjustment to a new baby. While health care providers are expected to be able to address these concerns, there is insufficient knowledge available to guide them in working with these families. This study will help us learn more about the early development of sibling relationships in families and the factors which influence the development of that relationship. Findings from this study could provide valuable guidance for health providers in working with childbearing families who have such concerns about older siblings. <sup>care</sup>

**F) Describe the consent process and attach all consent documents. If waiver from use of written consent is requested, give the justification.**

Families who hear about the study through posters will have a number to call to express their interest, and families who are given the information about the study from private physicians will be given the same phone number and also a form letter through which to express their interest. An appointment will be arranged at a time and place convenient to the family, in order for the investigator to meet the family and explain the purpose and procedures of the research. The study will be explained verbally, and printed information in the "letter of information and consent" will also be provided (see attached). Families will be given as much time as they wish to thoroughly discuss and consider whether or not they wish to participate. If they choose to do so, written consent will be obtained from both parents for their family to participate in the study. The purpose of the videotapes and interviews will be explained to the children as well, in as clear and simple terms as possible, and verbal assent accepted. (Older children may sign the consent form with their parents if they would like to do so.) A separate consent will be provided for use of visual data (videotapes). (See attached family "Information Letter and Consent Form" and Visual Data Consent Form. )

G) The number of subjects to be enrolled per year: maximum of 25 families

F) The expedited review category number from Consent Forum, Issue 5, is 9 & 13.



**FOR REFERENCE**

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