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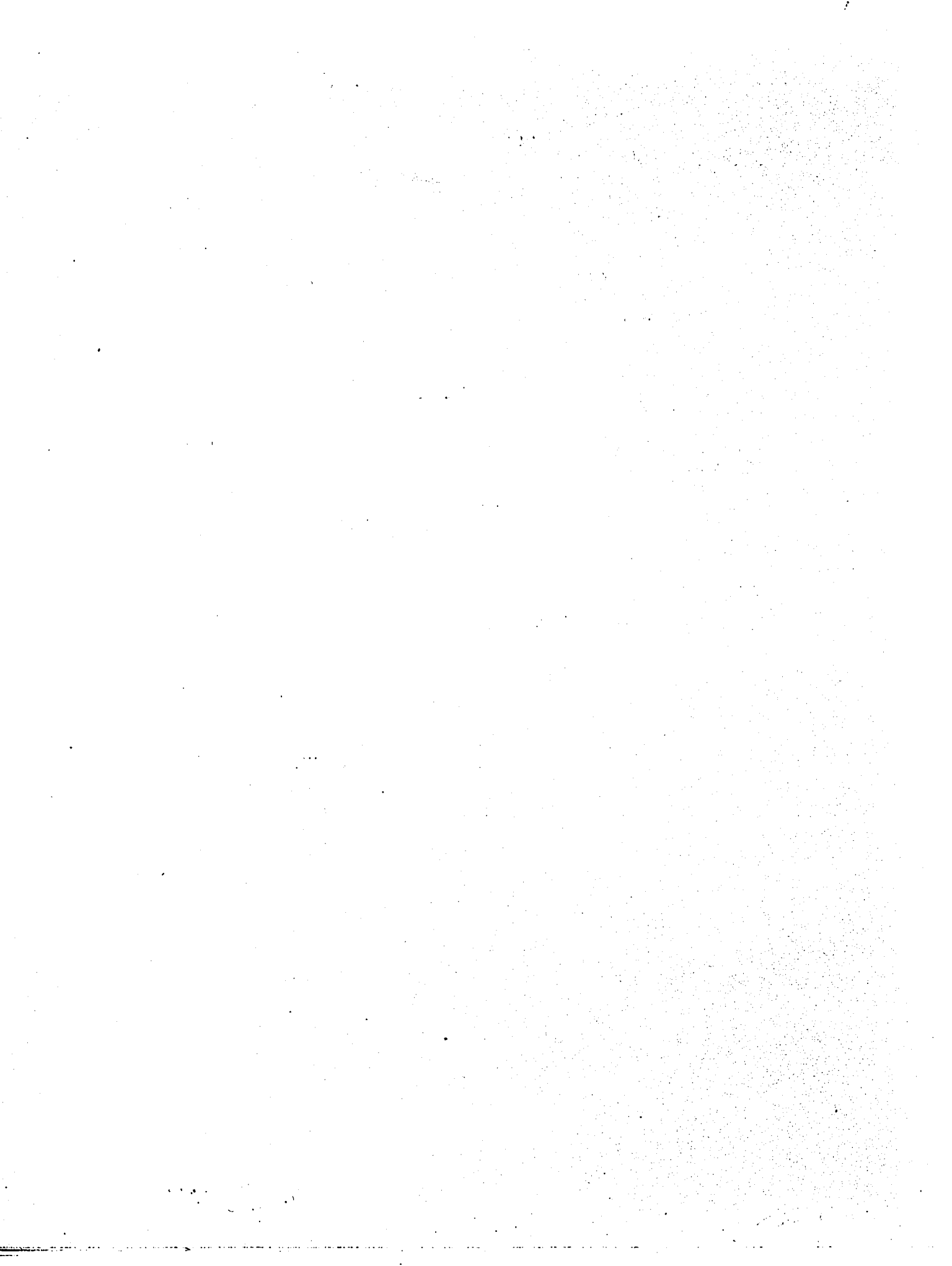
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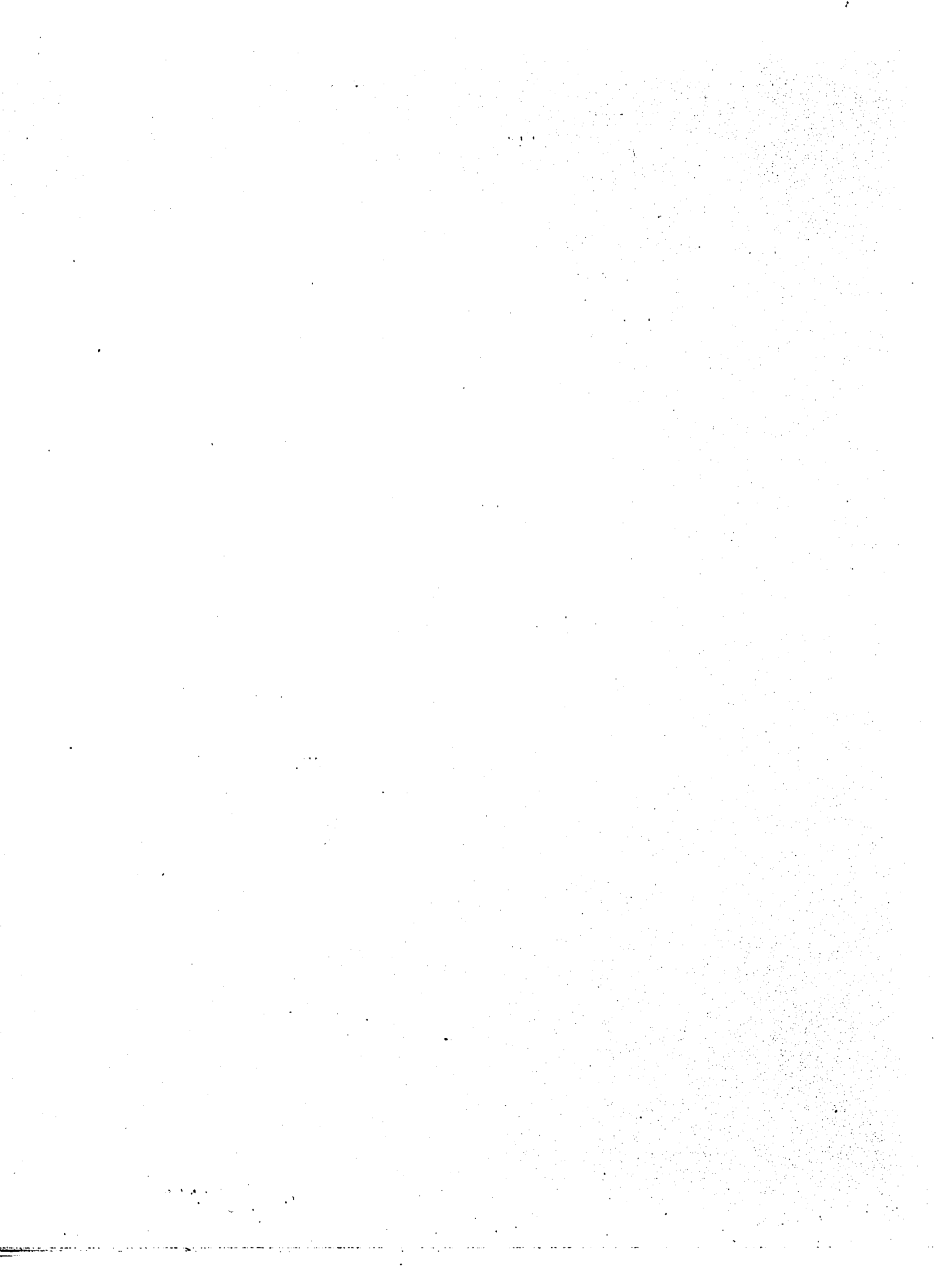
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**Sibling relationships: Their nature and association with other
familial and peer relationships**

Cox, Elizabeth Paula, Ph.D.

The University of North Carolina at Greensboro, 1988

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300 N. Zeeb Rd.
Ann Arbor, MI 48106



**SIBLING RELATIONSHIPS: THEIR NATURE AND ASSOCIATION
WITH OTHER FAMILIAL AND PEER RELATIONSHIPS**

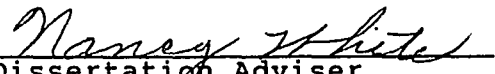
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Elizabeth Paula Cox

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the Faculty of the Graduate School at
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Approved by


Dissertation Adviser

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at The University of North Carolina at Greensboro.

Dissertation Adviser

Nancy White

Committee Members

Grace E. Kurling

Elliot J. Robins

Mildred Johnson

August 23, 1988
Date of Acceptance by Committee

August 23, 1988
Date of Final Oral Examination

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This study investigated college-age adolescents' perceptions of closeness with their siblings, mothers, fathers, and same-sex best friends. The objective was first to determine whether a variety of activities occur in these four types of relationships, then to determine similarities and differences in the profiles for these activities across the four types of relationships. Finally, uniqueness of the activities for given relationships was explored. The activities listed on the questionnaire included items reflecting various behavioral and affective components of relationships and were subsumed under three constructs--social provisions, conflict, and dominance. The questionnaire was developed from items on existing questionnaires and items created to represent more adequately the conceptual framework of closeness. The questionnaire was successfully pilot tested resulting in a scale with a Cronbach's alpha coefficient of internal consistency of greater than .7 across all constructs for all four types of relationships. Results of the main study indicated that social provisions, conflict, and dominance exist in the four types of relationships. The profiles of scores for social provision, conflict, and dominance taken simultaneously showed significant differences across the four types of

relationships when subject gender and gender of subjects' siblings were taken into account. Female subjects assigned significantly higher social provisions and incoming dominance scores to mothers, siblings, and best friends, and significantly higher scores on outgoing dominance to siblings and best friends. Subjects with female siblings assigned significantly higher scores on social provisions and outgoing dominance to siblings, while they assigned significantly higher conflict scores to mothers, fathers, and best friends.

When profiles of constructs were viewed for each relationship individually, interesting results were found. Exploration of the uniqueness of activities occurring within each relationship showed that most important activities within each relationship were redundant across all relationships.

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CHAPTER I
INTRODUCTION

The sibling relationship is one of the most significant relationships most persons experience in their lifetime. An estimated 90 percent of all persons grow up with a sibling in the family (Cicirelli, 1982). Although some researchers have explored various aspects of this relationship, other domains have been neglected, particularly in empirical research (Irish, 1964). Reasons given for this lack of attention to sibling relationships include the acceptance of the primacy of the parent-child relationship, the influence of psychoanalytic theory which tends to focus on sibling rivalry to the exclusion of other facets of the sibling relationship, the lack of theoretical underpinnings, and the difficulty in studying multiple interactions (Davis, 1985; Schvaneveldt & Ihinger, 1979; Tsukada, 1979).

Copious expository as well as empirically based literature exists describing various outcomes, such as achievement or personality profiles, for sibling constellation variables such as the number of children in the family, gender of children (Bowerman & Dobash, 1974), ordinal position (Bossard & Boll, 1956; Sutton-Smith &

Rosenberg, 1970), presence of a child with some sort of exceptionalism (Schvaneveldt & Ihinger, 1979), biological relationship of all children and whether biologically related, ages of the children when they became members of a household (Duberman, 1976; Lutz, 1982; Roseveldt & Lofas, 1976), and presence or absence of one or both parents. A substantial body of literature exists describing various behavioral and interactional variables such as sibling caregiving (Bank & Kahn, 1982; Weisner & Gallimore, 1977), sibling teaching (Stewart, 1983), sibling modeling (Sutton-Smith & Rosenberg, 1969), and sibling conflict and rivalry (Arnstein, 1979; Bank & Kahn, 1982). However, there is little research concerning the closeness of siblings. Investigations into how the sibling relationship compares to other familial relationships and to extrafamilial relationships during and across various developmental stages and over one's lifespan are scarce.

It is puzzling that the ecological impact of such an important relationship could be so long and conspicuously ignored. Some researchers have proposed that the attachment between siblings is second only to parent-child attachment (Furman & Buhrmester, 1985a), and that most persons list siblings among those who are important in their lives (Furman, 1984). Of interest in the present study is how "closeness" in a variety of behavioral and

affective relationship experiences compares to closeness in the sibling relationship. Specifically, are young adults' perceptions of their relationships with siblings similar to their perceptions of their relationships with each parent, and with their best friend? Berscheid and Peplau (1983) hinted that universal characteristics of closeness should be evident in all these relationships. In addition, Weiss (1975) concluded that different close relationships serve different functions. The major goal in the present study was to discover whether indices of closeness to siblings in three domains (social provisions, conflict, and dominance) profile similarly to indices of closeness in the same three domains for mother, father, and friends.

While few researchers have examined the association between the sibling relationship and other relationships, research on the sibling relationship from the subject's point of view is scarce. From a developmental perspective, adolescent sibling relationship literature is conspicuously missing. In the interest of developmental validity where attitudes and behaviors carry over across settings and time (Bronfenbrenner, 1979), research on sibling relationships should examine 1) the relationship from the perspective of the subject, 2) the connection between the sibling relationship and other important relationships, and 3) the association between the sibling relationship and other life

events across various developmental stages and transitions. The purpose of the present study was to consider the first two aspects of sibling relationship research by taking an exploratory "snapshot" view of subjects' perspectives during a particular life stage transition, and consequently profiling the multifaceted nature of the sibling relationship and thereafter comparing it to the multifaceted natures of the parent-child and best friend-self relationships.

The target population for the present study consisted of unmarried college students 17 to 22 years old, from intact families, and having one or more siblings. A sample from this population was surveyed concerning the subjects' perceptions of their relationships with their mother, father, the emotionally "closest" sibling of their choosing, and their same-sex best friend. Also, demographic variables such as sex, ordinal position, number of siblings, race, age of "closest" sibling, and living arrangements were obtained. Associations among perceptions of affects and behaviors in the target relationships and various demographic characteristics were examined. Heretofore, these variables and indices of perceptions have not been considered simultaneously in young adults who are in the transition of leaving the family nest. The present study compares the closeness these persons feel toward

their mother, father, sibling, and best friend.

Purpose of the Study

The purpose of the present study was to determine whether the subjects' perceptions of closeness in the sibling relationship, in the areas of social provisions, conflict, and dominance were in any way similar to their perceptions of closeness in each parent-child relationship and closeness in their relationships with their best friends. Subjects for the study were young adults, 17-22 years old, in a university setting. This period of time for these students is hallmarked by the transition process of leaving the family nest and aiming toward independent adulthood. Subjects were asked to complete a questionnaire with modified items from the Sibling Relationship Questionnaire (Furman & Buhrmester, 1985a), the Network of Relationships Inventory (Furman & Buhrmester, 1985b), the Family Environment Scale (Daniels, Dunn, Furstenberg, & Plomin, 1985), the Kansas Marital Satisfaction Scale (Schumm, Paff-Bergen, Hatch, Obiorah, Copeland, Meens, & Bugaighis, 1985), the Family Relations Test (Anthony & Bene, 1957), and the Parent Peer Attachment Scale (Armsden & Greenberg, 1987), combined with additional items which were created to represent more fully social provisions (Weiss, 1974) and the eight categories of interdependence

in close relationships (Kelley, Berscheid, Christensen, Harvey, Huston, Levinger, McClintock, Peplau, & Peterson, 1983). It was hoped that the present research would not only glean greater understanding of sibling relationships and how they relate to other aspects of peoples' lives, but would also provide evidence for the validity of an ecological perspective of studying sibling relationships. Results of the present study should also promote more specific theory building related to sibling relationships.

Definition of Terms

The following definitions of terms are provided to promote clarity. Citations which follow refer to sources where the terms were defined or were otherwise incorporated.

Age interval: the number of years between the age of one person and the age of another.

Primary dyad: a relationship between two persons which continues to exist phenomenologically for both participants even when they are not together (Bronfenbrenner, 1979). Primary dyads of interest in the present study include the parent-child dyad, the sibling-sibling dyad, and the subject-best friend dyad.

Interpersonal Relationship: "the system of interaction between two or more persons who are interrelated in such a manner that the persons act and react to one another in a social situation" (Schaneveldt, 1966).

Ordinal Position: a child's status in relation to the order of other siblings' birth positions (i.e. eldest, youngest, middle-born, etc.) (Schvaneveldt & Ihinger, 1979).

Sibling Status: a child's gender status in relation to siblings (i.e., brother, sister), which may be paired with ordinal position (e.g., older brother, younger sister) (Schvaneveldt & Ihinger, 1979).

Ecological transition: the process which ensues due to a change in a person's position, setting, or role; e.g., when a second child is brought into the home, the first-born becomes a sibling. "Every ecological transition is both a consequence and an instigator of developmental processes" (Bronfenbrenner, 1979, p. 27). For the present study, the subjects are characterized by having experienced the ecological transitions of friendship and entry into college.

Close relationship: characterized by "strong, frequent, and diverse interdependence that lasts over a considerable period of time" (Berscheid & Peplau, 1983, p. 38).

Interdependence: defined by types, patterns, strength, frequency, diversity, facilitation, symmetry, and duration of interactions (Kelley et al., 1983). (More detail of this concept is addressed in the subsequent chapter).

Dominance: asymmetrical influence over a broad range of activities (Huston, 1983).

Social provisions: consists of all the positive, warm, proximity-seeking aspects of relationships. Weiss's (1974) theory contains six categories: 1) attachment or security provided by close committed relationships with, for instance, spouse, kin, or close friend; 2) social integration typified by shared concerns, common interests and experiences, companionship, and social activity; 3) opportunity for nurturance in taking care of and being cared for; 4) reassurance of worth from being valued and feeling competent in context of the relationship or by members therein; 5) a sense of reliable alliance illustrated by continuing assistance and reciprocation of past help (usually among siblings and other kin); 6) obtaining guidance from a trustworthy and authoritative figure who furnishes emotional support and assistance in formulating a line of action.

Conflict: "occurs whenever the actions of one person interfere with the actions of another" (Peterson, 1983, p. 365).

Developmental validity: a change produced in one's conceptions or activities that carry over to other settings and other times (Bronfenbrenner, 1979). In a sense, the discovery of an association between a person's attitudes toward relationships with various family members and with friends supports the notion of developmental validity.

CHAPTER II
REVIEW OF THE LITERATURE

Framework of Close Relationships

Close relationships have been defined by Berscheid and Peplau (1983) as those in which there is frequent, strong, and diverse mutual impact over an extended duration between the members of the relationship. These authors also noted that there are regularities as well as changes in these relationships over time. Interdependence between the members of the relationship is a crucial factor in close relationships. Kelley et al. (1983) detailed the eight properties of interdependence in close relationships: 1) kinds of events (i.e. actions, affects, and thoughts); 2) patterns of interdependence, or how one member reacts to behaviors of the other; 3) strength of interdependence, which is exemplified by the amplitude of behaviors in the interaction, the number of chained behaviors in the interaction, and how much the interaction has far-reaching consequences; 4) frequency of interactions, or how often persons in the relationship interact; 5) diversity of interactions, or the number of different kinds of interactions members of the relationship have as well as the types and settings of interactions; 6) facilitation

versus interference, that is, whether interactions occur to assist the goals and actions of the members, or hinder and disrupt each other's goals and actions; 7) symmetrical versus asymmetrical interactions, or whether certain properties of the interaction are overrepresented in one person or the other; and 8) duration of the interaction and the relationship.

Although most of the writing and references of Kelley et al. (1983) concerning close relationships referred to marital or romantic relationships, it was suggested that similar properties should exist in all close relationships. In addition, these properties were hypothesized to exist over a potentially wide range of affective and emotional domains in close relationships. The purpose of the present study was to determine the existence of a variety of affective and behavioral activities of three domains--social provisions, conflict, and dominance--in four different types of relationships--mother-self, father-self, sibling-self, and friend-self--with particular focus on siblings.

Evidence can be found in other literature that supports many of the propositions of the framework proposed by Kelley et al. (1983). For example, Weiss's (1974) theory of social provisions fits well under the assumptions of the close relationship framework. Weiss

(1974) suggested that many positive actions must occur in close relationships and that, interestingly, different types of positive actions exist in different types of close relationships. This too is of interest for the present study. Ross and Milgram (1982) as well as Daniels et al. (1985) provided support for Weiss's (1974) theory from their study on adolescent attachment. Subjects in both studies reported feeling attachment toward parents as well as peers, but that the experiences in those two types of relationships were different.

Theories of Sibling Relationships

At least two sets of authors have specifically addressed sibling interaction (Bank & Kahn, 1975; Schvaneveldt & Ihinger, 1979). In addition, Bronfenbrenner (1979) proposed a general theory of development which envelops the processes of sibling adjustment and interaction. Each of these three explanations will be briefly discussed.

Pictorially, Bronfenbrenner's theory of human development (1979) can be represented by a group of four concentric circles depicting a model where influence spreads from microlevels outward to macrolevels as well as filtering in from macrolevels inward. Each increasingly larger circle from the micro-, meso-, exo- to the

macrosystem encompasses and therefore influences all smaller circles. The innermost of the concentric circles is the microsystem which Bronfenbrenner described as "pattern of activities and roles and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics" (p. 22). A setting is where persons can freely engage in face-to-face interaction, and roles are behaviors associated with the particular position one has (i.e., sibling, parent, etc.). Development occurs when there is a change in the characteristics of a person in both the perceptual and action modes, and those changes have some continuity over time and situation.

Schvaneveldt and Ihinger (1979) offered a list of propositions for theory building in the area of sibling relationships. These propositions were based on previous research and symbolic interaction theory and borrow from exchange theory. According to the authors, role making occurs with family members when role scripts are lacking or no longer fit the members or the situation. Within each primary dyad in a person's life (i.e., sibling-sibling, parent-child, friend-friend), each member experiences role making. It is a dynamic process in that it begins anew whenever one or all members of the dyad grow and change developmentally. Major assumptions concerning sibling

interaction begin with the following premises: a) sibling groups share many characteristics of other small groups such as having a communication network, sharing power and affective relations, operating in accord with roles, norms and functions, and in generating cooperation and conflict; b) the sibling subsystem may be considered a semiclosed system within the family; c) siblings are both instigators and recipients of socialization and interaction; d) sibling interaction is a continuous developmental process; e) family composition and interaction contribute to family members' personality development and social behavior (Schvaneveldt & Ihinger, 1979). The boundaries of the family expand and consequently become more open with the addition of new family members and subsequent to the onset of one's developing new relationships outside the family. One question of interest in the present study was whether the perceptions of the relationships in the social network were associated with perceptions of relationships in the family setting. A theoretical proposition of particular interest for the present study was as follows: "The degree of sibling affect that emerges from sibling interaction is influenced by variables of age, sex, spacing of siblings and degree of parental cohesiveness" (Schvaneveldt & Ihinger, 1979, p.463). For the present study, subjects were within a restricted age range to control for the age

variable, while the effects of subject gender and sibling gender were examined.

Bank and Kahn (1975) posited that there are certain functions which siblings serve for one another that are relatively exclusive of the parent-child relationships. The function most pertinent for the present study stated that direct services can be provided for one sibling by the other in the forms, for example, of teaching, defending in the presence of others, and lending. Closer examination of particular items on the questionnaire in the present study should help determine whether these services were exclusive to the sibling relationship.

Sibling Relationships

Various demographic aspects consistently appear throughout much of the literature on sibling relationships. However, the reported results related to these variables are mixed. These variables include the age interval between siblings, ordinal position, and sibling status. The influence of these constellation variables as reported in various studies is described below.

In some of the literature reviewed, age interval and gender appeared to influence sibling interaction while in other studies, these variables seemed to have no influence

at all. In several studies of very young children (infants to early childhood) the following conclusions were reported. In a series of studies on infants with preschool-aged siblings, Abramovitch, Corter with Lando (1979) and with Pepler (1980), and Pepler, Abramovitch, and Corter (1981) found that older children initiated more prosocial as well as agonistic behaviors toward younger siblings than younger children initiated toward older siblings regardless of sibling status or gender composition of the pair. However, in the latter study (Pepler et al., 1981), older brothers tended to be more agonistic while older sisters tended to initiate more prosocial behaviors. In all three studies, age interval had no effect.

Lamb (1978a, 1978b) observed 24 infants with their preschool-aged siblings and found results similar to the three aforementioned studies. He found that older siblings took more initiative in interactions with siblings. Interestingly, in the six-month follow-up observation (Lamb, 1979b), older female siblings were more likely to initiate prosocial behaviors, which was not a finding in the earlier study (Lamb, 1978a).

Similar results were found by Dunn and Kendrick (1981) in an observational study of 40 infant and preschool sibling pairs. Older siblings and same-sex sibling pairs tended to have more prosocial interactions, while older

siblings and cross-sex sibling pairs tended to have more negative interactions. Koch (1960) interviewed 360 five- and six-year-old children with siblings and found results consistent with the studies mentioned previously. An inverse relationship was found between age interval and how much children reported playing with their siblings. In addition, effects due to gender, as females (regardless of ordinal position) reported more positive relationships with siblings. Moderate to severe conflict with sibling was reported by 64% of the sample.

In a study of 20 3- to 6- year old sisters, McFarland (1937) found both positive and negative behaviors in interactions. Interaction tended to be initiated by the older sister who also tended to be more aggressive in conflict. Baskett and Johnson (1982) observed the interaction patterns in 47 families and found that sibling interaction tended to be more negative than parent-child interaction. Gender differences were reported as female siblings tended to interact more frequently than male siblings.

In a survey of 95 elementary school children (fifth and sixth graders), Sutton-Smith and Rosenberg (1968) found ordinal position and gender differences. First-borns were perceived as more agonistic and having higher power than second-borns, particularly if the first-born is male.

Interestingly, in a study of 198 fifth and sixth graders, Furman and Buhrmester (1985a) also found gender differences as same-sex siblings reported feeling more closeness than cross-sex siblings. Ordinal position influenced perceptions of power as older siblings were viewed as more nurturant and dominant than younger siblings. Not surprisingly, there was an inverse relationship between age interval and conflict with greater conflict being related to narrow age spacing between siblings.

In a later study of 417 second, fifth, and eighth graders, Buhrmester and Furman (1987) found that siblings were primary sources of intimacy and companionship for children across the three grade levels. In fact, sibling companionship remained fairly constant while the need for companionship with same-sex friends increased and the need for companionship with parents remained the highest.

Bowerman and Dobash (1974) surveyed 8100 junior and senior high school students about their siblings. They found that 65% of the subjects reported feeling close to their siblings. Further, females were more likely to have high positive affect toward siblings than males, same-sex siblings were preferred over cross-sex siblings, affect tended to be more positive toward older rather than younger siblings, and sibling affect tended to be more positive in two-child families than those with more

children.

Sibling relationship studies of college-age adolescents are scarce. Sutton-Smith and Rosenberg (1964) studied college students (using methods similar to those in their earlier study on elementary-school-age siblings) and found similar results regarding ordinal position. First-borns were viewed as more aggressive than second-borns, who were perceived as more passive in trying to elicit responses from their siblings. In a survey of 100 college women, Cicirelli (1980) found effects due to age interval. Subjects reported feeling more positively toward the sibling closest in age. Interestingly, there did not seem to be any gender or ordinal position effects as the subjects were equally likely to choose an older or younger brother or sister as the sibling to whom they felt closest.

Bell, Avery, Jenkins, Feld and Schoenrock (1983) surveyed 2313 college freshmen concerning their relationships with family and peers to discriminate the importance of parent-child, sibling, and friendship relationships. The authors found that greater closeness to family was related to better peer relationships. Further, it was found that closeness to siblings was related to positive parental affect as well as greater satisfaction in peer relationships.

Summary of Sibling Relationship Literature

Results of sibling relationship studies showed some consistencies as well as differences. Some researchers found that siblings closer in age had better family relationships (Bossard & Boll, 1966), felt closer (Cicirelli, 1980), played together more often, and gave fewer reports of abuse by siblings (Koch, 1960). Others found little or no significant age or gender effects in sibling interactions (Baskett & Johnson, 1982). Still others found that younger, same-sex, small-age-interval siblings responded more negatively to their siblings (Pepler et al., 1981). More positive relationships between same-sex siblings versus cross-sex siblings were also reported by some (Dunn & Kendrick, 1979, 1981; Sutton-Smith & Rosenberg, 1968b, cited in Sutton-Smith & Rosenberg, 1970). This seemed particularly true for sisters (Abramovitch et al., 1979, 1980; and Koch, 1960). Brothers were seen as tending to use more physical negative behaviors (Sutton-Smith & Rosenberg, 1968b, cited in Sutton-Smith & Rosenberg, 1970). Many types of interactions, including positive and negative, appeared to be frequent in sibling interactions (Abramovitch et al., 1979, 1980; Baskett & Johnson, 1982; Kendrick & Dunn, 1979; McFarland, 1937). Furthermore, interactions, both positive

and negative, tended to increase over time, particularly with the youngest siblings studied (Bryant & Crockenberg, 1980; Dunn & Kendrick, 1981; Lamb, 1978b; McFarland, 1960; Pepler et al., 1981). It was suggested that in cross-sex sibling pairs, only negative behaviors increased over time (Dunn & Kendrick, 1981). Overall, it was perceived that interactive behavior at one time was predictive of interactive behavior at a later time (Bryant & Crockenberg, 1980). From much of the literature, this appears to be true.

Most adolescents reported feeling emotional closeness toward siblings (Bowerman & Dobash, 1974). College-age siblings were equally likely to name next-oldest, next-youngest, male, or female siblings as their emotionally closest sibling (Cicirelli, 1980).

Inconsistencies in results could be due to a number of things. First, there were inconsistencies in aspects being measured as well as the methods of measurement. Often two different researchers gave vastly different operational definitions to constructs which have the same name. This often leads to seemingly inconsistent empirical results when the inconsistency lies in conceptual and methodological differences. Secondly, different populations were sampled in most of the studies reviewed. When results of one study are extrapolated to a different

setting or population inconsistent results are common. Lastly, for literature in the area of sibling interpersonal interaction, many differences may be due to subjects being in different developmental ages and stages when they are studied. Actually, it is quite remarkable that many of the results of sibling interaction studies done with infants and preschoolers are fairly consistent with studies done with elementary school or college-age subjects.

Assumptions

The following assumptions were basic to this study:

1. Adolescents are able to assess and report the emotional relationships between and among members of their family, as well as between themselves and other members of their social network.
2. Adolescents' reports of perceptions of affect toward members of their family and friends are valid and reliable assessments of those interpersonal relationships (Anthony & Bene, 1957). According to Bronfenbrenner (1979), "the child's evolving construction of reality cannot be observed directly; it can only be inferred from patterns of activity as these are expressed in both verbal and nonverbal behavior, particularly in the activities, roles, and relations in which the person engages" (p. 11).

3. Close relationships provide the setting for a wide range of affective and behavioral expressions and activities (Kelley et al., 1983). According to Norman and Harris (1981), when adolescents are asked to describe their relationships with siblings, affection, irritation, excitement, frustration, love, and hate will be included.

4. Sibling relationships may vary in intensity during various stages of development. This assumption concurred with Schvaneveldt's (1966) notion of family relationships as being depicted by continual flux. Regardless of this flux, sibling attachment is assumed to remain fairly stable over time. This concept is substantiated by Furman (1984), who stated that there are regularities and changes in relationships over time. Various studies on different persons at different ages have concluded that siblings are important to people even though there is much evidence that interaction patterns between siblings change over time.

Statement of the Problem

The primary goal of the present study was to assess how three particular domains of closeness--social provisions, conflict, dominance--profile for siblings, mothers, fathers, and best friends. These domains were measured with a questionnaire including modified items from the following measures: The Sibling Relationship

Questionnaire (Furman & Buhrmester, 1985a), the Network of Relationships Inventory (Furman & Buhrmester, 1985b), the Family Environment Scale (Daniels et al., 1985), the Kansas Marital Satisfaction Scale (Schumm et al., 1981), and the Family Relations Test (Anthony & Bene, 1957) in addition to items created to represent the eight categories of interdependence (see Berscheid & Peplau, 1983), as well as the six types of social provisions (see Weiss, 1974).

Hypotheses

Based on the literature, the following hypotheses were proposed.

1. Social provisions, conflict, and dominant influence each exist to some extent in the subjects' perceptions of their relationships with mother, father, "closest" sibling, and same-sex best friend.

Confirmation of this hypothesis would support the framework of close relationships proposed by Kelley et al. (1983) by showing the existence of a wide range of activities of different types and intensities within such relationships.

2. Social provisions, conflict, and dominance will be at different levels within each category of target person, and furthermore, will be different between at least some of the categories of target persons.

- a. Mother will be characterized by high social provisions, low dominant influence, and low conflict.

Pipp, Shaver, Jennings, Lamborn, and Fischer (1985) asked adolescents their perceptions of the development of their relationships with their parents and found an increase in parental friendship with age, and a decrease in parental dominance. Similarly, Armsden and Greenberg (1987) found adolescents reported feeling "closer" to mother than to father or friend. These authors also found utilization (i.e., helpfulness) to be higher for parents than peers. Likewise, Kandel and Lesser (1972) reported adolescents prioritizing helpfulness in mother first, friend second, and father last. Hunter and Youniss (1982) found intimacy to be rated highest for mothers, and control rated higher in mothers and fathers than friends. In their studies of elementary school children's social networks,

Furman and Buhrmester (1985) found that mothers and fathers (particularly mothers) scored highest on factors of warmth and closeness.

- b. Fathers will be characterized by high social provisions, moderate dominant influence, and low conflict.

Much of the literature cited above suggests that many adolescents view their fathers as providing as many social provisions as mothers (Pipp et al., 1985). On the other hand, other authors suggested fathers were second to mothers, and sometimes seen as less intimate than friends (Armsden & Greenberg, 1987; Furman & Burhmester, 1985; Hunter & Youniss, 1982; Kandel & Lesser, 1972). In general, however, it was hypothesized here that fathers would be perceived as providing a high level of social provisions. As with mothers, relationships with fathers were perceived by elementary school children as being low in conflict (Furman & Burhmester, 1985). This phenomenon was expected to exist for the adolescent population targeted in the present study. Dominance was expected to be moderately low for both fathers and mothers. While Hunter and Youniss (1982) found control to be perceived as higher from parents than friends, Pipp et al. (1985) found

dominance to be especially associated with fathers by their adolescent children. O'Donnell (1976) found attachment to fathers was not significantly different from attachment to mothers.

- c. Siblings will be characterized as receiving moderately high social provisions, and moderate levels of conflict and dominance.

Results from sibling relationship studies appear to be inconsistent. Ross and Milgram (1982) found sibling closeness was not as intense as closeness toward parents. Conversely, Cicirelli (1980) found that sibling closeness was occasionally higher than closeness with parents. Many have concluded (e.g., Norman & Harris, 1981) that sibling relationships tend to improve when siblings get older, particularly when older ones leave the home.

In agreement with the Kelley et al. (1983) framework of close relationships, Adams (1968) discovered mutual aid to occur more frequently in sibling relationships wherein siblings stated they felt closer. Norman and Harris (1981) reported that while disputes between siblings can be the most intense of any in the family, siblings can also interact as confidants, share secrets, and defend each

other. It was further suggested that siblings may use each other as scapegoats for many of the tensions that originate elsewhere (e.g., with parents or friends). However, it was concluded that family ties supersede conflict. Although dominance has not specifically been studied with adolescent siblings, Tsukada (1979) found that sibling influence increased with age.

- d. Same-sex best friends will be characterized as high in social provisions, and low in conflict and dominance.

Much of the literature concerning adolescent attachment to friends as compared to parents has been cited previously (e.g., Armsden & Greenberg, 1987; Kandel & Lesser, 1972). Generally it appeared that friends as well as parents were rated high in closeness. Given that literature cited previously (and some to be cited henceforth) depicts little or no conflict between kin relationships of interest in this paper, it was expected that conflict and dominance would be low in relationships with friends also.

3. Of interest for exploration, as well as questionnaire validation, is whether

components within each category of social provisions, conflict, and dominance will differ between target persons.

Weiss (1974) theorized that the social provisions provided in close relationships should vary by the nature of the membership of the relationship. For example, family members may be more likely to provide needed assistance while friendships may have shared interests. The intention here was to explore this hypothesis based on Weiss' (1974) proposition as it relates to the provision of social resources. Although it appeared that Weiss (1974) assessed the provision of social resources from an individual level, the present study will analyze the provision of social resources, conflict, and dominance from a broad, cultural perspective. An additional intention in the present study was to assess whether the premise that different members of one's social network provide different social provisions was consistent for conflict and dominance as well. Neither conflict nor dominance has been examined simultaneously in this context previously.

Strengths and Limitations

The purpose of the present study was to explore how the sibling relationship compares to various other

relationships and behaviors, providing evidence in support of the generalizability of the Kelley et al. (1983) framework of close relationships to include sibling relationships. Ideally, this could best be accomplished with a longitudinal, multimeasure, multimethod (observational and phenomenological) study where all members of interest could be followed and studied. Since constraints on time and resources do not allow for this approach, the following strengths and limitations of the present study were offered.

Strengths

A major strength of this project was in the assessment of the sibling relationship from the perceptions of the subjects themselves rather than relying on the reports of others (e.g., parents). Secondly, the intent of this study was to take an ecological perspective to examine various other relationships and experiences to assess how they compared to the sibling relationship. This was in congruence with Furman's (1984) first proposition (examining multiple facets of a relationship) of conducting research on personal relationships. Heretofore, only a microscopic view of variables within the sibling relationship had been made. Further, studying young adults during their transition to adulthood was a unique

perspective. Lastly, it was hoped that this endeavor could provide validity of the measure being used as well as support for Weiss's (1974) theory concerning differing relationship needs.

Limitations

A major limitation of the present study was the lack of supporting information from other members of the subjects' families and social network (Furman, 1984). Also a longitudinal design for the present study would have been more informative and more supportive of the concept of developmental validity in exploring the interplay within and across the various relationships over time (Furman, 1984). Instead, a focused "snapshot" view was collected with the results assumed to be generalizable to comparable subjects. Finally, since the subjects consisted exclusively of college-age students enrolled in a four-year public university, care must be taken in generalizing the results of the present study to different persons at other developmental stages as well as to other populations.

CHAPTER III

METHODS AND PROCEDURES

The present study was conducted in two phases. The first phase was an extensive preliminary study (henceforth referred to as the pilot study) to test and revise the survey instrument (see Appendix A), as well as to gain information concerning certain psychometric properties of the instrument. The second phase was the main study to test hypotheses and provide further psychometric information about the instrument. A discussion of the development of the questionnaire will be presented first, followed by descriptions of the pilot study phase and the main phase of the present study.

Instruments

The following are descriptions of the various test instruments from which items were extracted and modified for use in the present study. In addition to items from the following instruments, more items were created in an attempt to construct a measurement instrument which would adequately represent as well as measure the domains of interest for the present study.

Sibling Relationship Questionnaire

The Sibling Relationship Questionnaire (Furman & Buhrmester, 1985a) was designed to assess perceptions concerning the quality of the relationship with one's siblings for up to seven siblings. Typically, the sibling designated as most important (self-report of the emotionally closest) is the focus of study. The 52-item Sibling Relationship Questionnaire was developed in two phases. First, the authors conducted open-ended interviews with 40 fifth- and sixth-grade children. Responses were coded, then sorted by independent raters according to similarity of statement. The 52 items on the instrument were then grouped into 15 different subscales by Principal Components Factor Analysis. The resultant scale was then administered to 198 fifth- and sixth-grade children. This scale was then factor analyzed by the authors and four factors resulted: Warmth/Closeness, Conflict, Relative Status Power, and Parental Partiality.

The Sibling Relationship Questionnaire appeared to be psychometrically sound. Internal consistency coefficients (Cronbach's alpha) for each of the fifteen subscales all exceeded .70. Test-retest reliability coefficients for the subscales ranged from .58 to .86. When correlated with a social desirability measure, most subscales had low correlations, indicating discrimination.

Items from the Warmth/Closeness, Conflict, and Relative Status Power subscales from this questionnaire, in addition to items from subscales on the Social Network Questionnaire (Furman & Buhrmester, 1985a) provided the foundation of items for the measurement of social provisions, conflict and dominance for this study.

Network of Relationships Inventory

The Network of Relationships Inventory was developed to determine the qualities of relationships with one's mother, father, siblings, friends, a teacher, and an important relative (Furman & Burhmester, 1985b). The instrument contains 33 items which group into 12 subscales which can be grouped into two major areas: Warmth/Closeness and Conflict. The questionnaire was administered to a sample of 199 sixth-grade children in order to test the psychometric qualities of the instrument. It should be noted that most items on the questionnaire are redundant with the Sibling Relationships Questionnaire (Furman & Buhrmester, 1985a). Internal consistency scores (Cronbach's alpha) for the 12 subscale scores resulted in a mean alpha of .80 (Furman & Buhrmester, 1985b). All alphas of subscales used in the present study exceeded .60.

The teacher and the sibling components were omitted for this study since the former did not seem appropriate,

and for the latter, items were redundant with the Sibling Relationship Questionnaire.

Family Environment Scale

The Family Environment Scale was developed to assess general cooperativeness, family stress, rule expectations, parental closeness, including children in decision making, and children's relationships to peers and siblings (Daniels, Dunn, Furstenberg, & Plomin, 1985). The measure can be taken by any or all family members. The questionnaire used by Daniels et al. (1985) was composed of items from existing measures from a larger study. The sample surveyed for the Family Environment Scale included 288 intact families (with at least two children) who were part of the National Survey of Children study. The questions Daniels et al. (1985) used were answered by mothers and children; then the answers were correlated to assess agreement. The 28 questions fell into nine categories with parent-child agreement (determined by Pearson Product Moment Correlations) ranging from .10 to .53 with all correlations significant at the .05 level.

For the purpose of the present study, individual items on the Family Environment Scale were chosen by how well the item seemed to help measure the constructs of interest. Many items were reworded so the format of the

Close Relationships Questionnaire would be consistent and, more important, so the items would more adequately measure the constructs of interest.

Kansas Marital Satisfaction Scale

The Kansas Marital Satisfaction Scale is a three item questionnaire designed to determine the quality of the marital relationship (Schumm, Paff-Bergen, Hatch, Obiorah, Copeland, Meens, & Bugaighis, 1986). The Kansas Marital Satisfaction Scale has been found to have good concurrent validity (Schumm et al., 1986). It was found to correlate highly with Spanier's Dyadic Adjustment Scale ($r=.83$) and Norton's Quality Marriage Index ($r=.91$), when administered to a sample of 93 wives who were participants in the Agricultural Experiment Station Regional North Carolina 164 Project, "Stress and Coping during the Middle Years of the Family Life Cycle" (see Schumm et al., 1986). In addition, the Cronbach's Alpha Coefficient of internal consistency of the Kansas Marital Satisfaction was found to be .93.

For the purpose of the present study, the items were altered to reflect subjects' satisfaction with each of the four target relationships.

Family Relations Test

The Family Relations Test is an 86-item instrument designed to measure the quality of the relationships between the members of a family as perceived by the person taking the test (Anthony & Bene, 1957). The instrument has six major subscales: Positive Incoming Feelings, Positive Outgoing Feelings, Negative Incoming Feelings, Negative Outgoing Feelings, Maternal Overindulgence, and Maternal Overprotection.

According to the authors, validity of the Family Relations Test was established on two sets of subjects who were children referred to outpatient child guidance clinics. Data collected on the first set of subjects were compared with case material compiled by psychiatrists and psychiatric social workers. Data from the second set of subjects were compared with questionnaire material obtained from the subjects' mothers. In both cases, the authors believed that there was adequate agreement between test results and other information. Reliability of the test reported by the authors was more objective. A modified split half reliability was employed, and the Spearman-Brown coefficients were around .80 for various parts of the test.

VanSlyke and Leton (1965) found the Family Relationship Test items correlated .49 to .73 with the Swanson Child-Parent Relationship Scale. The negative

items alone correlated .56 with the Forer Sentence Completion test (to identify positive and negative feelings in intrafamily relationships) when administered to a sample of 18 fourth graders.

Bean (1976) found the test-retest reliability of the measure to be .814 when used with a sample of 20 normal and 20 emotionally disturbed boys. Likewise, Kauffman, Weaver, and Weaver (1972) administered the Family Relations Test to 46 children (8 to 16 years old) in a remedial reading program and found test-retest reliability coefficients to be .70 and above.

For the present study, items from the positive and negative portions of the Family Relations Test were considered. The incoming ("to me") and outgoing ("from me") nature of the items was maintained in the interest of representing asymmetry of interaction (Kelley et al., 1983).

Questionnaire for the Present Study

For many of the remaining items on the questionnaire, items were designed to be similar to the format of items on the Family Relations Test. The final items on the questionnaire being used in the present study were constructed by the investigator (see Appendix A). In formulating these items, an attempt was made to represent

all eight properties of the interdependence of close relationships (see Definition of Terms), as well as the six categories of social provisions (see Definition of Terms) for each of the three domains of interest. Items from the above questionnaires were chosen as deemed appropriate to measure the constructs of interest (i.e., social provisions, conflict, and dominance). Although most of the instruments described above were developed for younger subjects, items for the present study were modified or omitted if they were deemed inappropriate for this older adolescent population. Each construct contained nearly the same number of items. Then the items were randomly arranged and were formatted into the pilot study version of the questionnaire.

Information gleaned from the pilot study proved helpful in making revisions in the questionnaire. Various demographic items were reworded for enhanced clarity, and the number of questions on the affective measure was decreased from 144 to 105 of the most internally consistent items.

The Pilot Study

The pilot instrument was administered to a convenience sample of students at the University of North Carolina at Greensboro who were taking an intermediate

level family relations course in the Department of Child Development and Family Relations during the 1988 Spring semester. Subjects were encouraged to offer suggestions concerning the format and content of the questionnaire. One goal of the pilot test was to eliminate unnecessary or extraneous items from the measurement instrument. A copy of the pilot instrument can be found in Appendix A.

Modifications of the Questionnaire

Several steps were taken in altering the questionnaire to produce the final version. First, the pilot test items were listed according to construct (see Appendix B). For example, all items considered as belonging to "social provisions" were grouped, all items belonging to the construct "conflict" were grouped, and all items belonging to the construct "dominance" were grouped. Item-construct scale correlations for items on each scale were then computed using the Statistical Analysis System (SAS, 1980). Each item on the social provisions scale was correlated with the mean social provisions score, etc. (see Table 1, Table 2, and Table 3). For both the social provisions scale and the conflict scale, items which had correlation coefficients less than .4 with the mean scale score for two or more of the four target persons (mother, father, closest sibling and best

Table 1

Item-Scale Correlations for Social Provisions Across All
Target Persons in the Pilot Study

Item	Correlations			
	Mother	Father	Sibling	Friend
2	.759	.616	.868	.659
7	.524	.688	.677	.622
8	.808	.435	.425	.303
9	.507	.655	.581	.725
16	.604	.654	.697	.661
22	.643	.778	.498	.671
26	.709	.540	.711	.636
27	.695	.712	.761	.724
33	.804	.719	.761	.701
34	.500	.721	.220	.532
35	.487	.269	.489	.512
45	.560	.714	.550	.697
48	.690	.518	.785	.759
50	.538	.687	.503	.532
60	.746	.281	.793	.431
61	.473	.653	.301	.391
64	.555	.804	.522	.346
66	.647	.709	.336	.523
67	.629	.748	.723	.529
71	.400	.604	.410	.579
78	.682	.684	.444	.659
79	.644	.727	.583	.652
80	.445	.698	.373	.595
83	.271	.580	.319	.522
88	.509	.746	.786	.626
89	.583	.493	.624	.700
94	.627	.492	.586	.477
98	.627	.715	.734	.431
100	.750	.787	.672	.658
101	.769	.767	.729	.724
104	.546	.545	.620	.508
105	.415	.779	.644	.627
112	.576	.563	.707	.743
113	.441	.681	.671	.676
114	.498	.733	.688	.718
118	.465	.758	.167	.348
119	.765	.752	.851	.714
120	.321	.777	.245	.712
121	.433	.779	.232	.658
123	.547	.553	.537	.659
124	.484	.754	.608	.307
125	.091	.550	.522	.759
126	.486	.796	.738	.557
128	.752	.866	.750	.709
129	.540	.764	.479	.542
130	.179	.731	.383	.704
132	.171	.765	.245	.630
135	.171	.805	.245	.708
139	.767	.796	.645	.639
141	.824	.912	.879	.677

friend) were omitted from the scale since they did not contribute to the overall reliability of the scale. Items with item-scale correlation coefficients greater than .4 for at least three of the four target persons were retained for the final version of the questionnaire. This was in keeping with Nunnally's (1978) recommendation. Items which were omitted from the scales were then correlated with the other scales to see if they belonged to another scale (see Table 4). As it turned out, none of the extraneous items correlated above .4 with any other scale for more than two target persons.

Results from the dominance scale were not as clear as the results for social provisions and conflict. Most item-scale correlations were considerably lower than .4 (see Table 3); therefore, another strategy had to be employed. A Principal Components Factor Analysis was performed on the dominance scale with interesting and illuminating results (see Table 5). The initial factor extraction was so clear that rotations were not necessary. As can be seen, most items clearly loaded on Factor 1, indicating that only one construct was being measured. Items which had factor loadings greater than .2 were retained for the dominance scale. This procedure resulted in item-scale correlations which met the following criteria. Because the measurement of dominance was

Table 4

Item-Scale Correlations for Extraneous Items from the Pilot Study

Item	Correlations			
	Social Provisions	Conflict	Dominance	
			Incoming	Outgoing
<u>Social provisions</u>				
8	---	.670	.776	.732
34	---	.366	.508	.560
35	---	.522	.526	.610
60	---	.395	.603	.578
61	---	.552	.552	.346
66	---	.679	.697	.574
71	---	.038	.348	.257
83	---	.388	.383	.410
118	---	.439	.472	.326
120	---	.290	.230	.311
121	---	.221	.369	.223
<u>Conflict</u>				
5	.649	---	.582	.468
11	.310	---	.417	.310
19	.171	---	.283	.078
20	.327	---	.523	.425
25	.095	---	.123	.145
46	.351	---	.365	.394
56	.343	---	.252	.225
76	.388	---	.538	.322
82	.015	---	.054	.139
97	.288	---	.200	.046
127	.119	---	.252	.155
<u>Dominance</u>				
15	.467	.580	---	---
24	.201	.191	---	---
30	.150	.274	---	---
39	.518	.793	---	---
55	.337	.444	---	---
77	.190	.064	---	---
95	.134	.250	---	---
107	.198	.609	---	---
110	.041	.216	---	---
111	.279	.621	---	---

(table continues)

Table 4
Item-Scale Correlations for Extraneous Items from the
 Pilot Study

Item	Correlations			
	Social Provisions	Father Conflict	Dominance Incoming	Dominance Outgoing
<u>Social provisions</u>				
8	--	.623	.350	.390
34	---	.114	.673	.621
35	---	.162	.201	.197
60	---	.073	.346	.215
61	---	.258	.693	.647
66	---	.624	.764	.680
71	---	.097	.647	.577
83	---	.170	.596	.585
118	---	.185	.757	.716
120	---	.082	.601	.674
121	---	.246	.589	.703
<u>Conflict</u>				
5	.619	--	.374	.500
11	.180	---	.127	.257
19	.418	---	.326	.497
20	.168	---	.223	.286
25	.284	---	.219	.221
46	.042	---	.095	.060
56	.546	---	.354	.466
76	.257	---	.271	.185
82	.316	---	.296	.340
97	.024	---	.062	.159
127	.289	---	.237	.345
<u>Dominance</u>				
15	.084	.353	--	--
24	.384	.029	---	---
30	.296	.194	---	---
39	.146	.613	---	---
55	.043	.279	---	---
77	.122	.437	---	---
95	.029	.473	---	---
107	.408	.237	---	---
110	.570	.222	---	---
111	.146	.514	---	---

(table continues)

Table 4
Item-Scale Correlations for Extraneous Items from the
Pilot Study

Item	Correlations			
	Social Provisions	Sibling Conflict	Dominance Incoming	Dominance Outgoing
<u>Social provisions</u>				
8	---	.555	.397	.370
34	---	.155	.310	.225
35	---	.031	.457	.462
60	---	.423	.728	.721
61	---	.373	.467	.294
66	---	.521	.439	.273
71	---	.396	.309	.264
83	---	.455	.134	.205
118	---	.098	.078	.065
120	---	.243	.086	.110
121	---	.239	.135	.218
<u>Conflict</u>				
5	.461	---	.345	.426
11	.290	---	.162	.346
19	.522	---	.510	.645
20	.202	---	.152	.154
25	.320	---	.311	.275
46	.197	---	.146	.369
56	.525	---	.569	.613
76	.299	---	.271	.342
82	.423	---	.100	.038
97	.245	---	.253	.147
127	.365	---	.215	.488
<u>Dominance</u>				
15	.187	.487	---	---
24	.236	.460	---	---
30	.081	.184	---	---
39	.323	.389	---	---
55	.200	.409	---	---
77	.112	.136	---	---
95	.034	.281	---	---
107	.151	.551	---	---
110	.193	.105	---	---
111	.377	.590	---	---

(table continues)

Table 4

Item-Scale Correlations for Extraneous Items from the
Pilot Study

Item	Correlations			
	Social Provisions	Friend Conflict	Dominance	
			Incoming	Outgoing
<u>Social provisions</u>				
8	---	.363	.319	.340
34	---	.180	.554	.470
35	---	.429	.453	.458
60	---	.091	.174	.106
61	---	.285	.541	.409
66	---	.437	.552	.346
71	---	.164	.413	.492
83	---	.251	.620	.461
118	---	.358	.200	.124
120	---	.131	.421	.481
121	---	.000	.442	.409
<u>Conflict</u>				
5	.264	---	.315	.291
11	.281	---	.190	.171
19	.159	---	.218	.370
20	.123	---	.135	.117
25	.281	---	.161	.065
46	.125	---	.193	.319
56	.421	---	.433	.452
76	.136	---	.393	.278
82	.241	---	.278	.154
97	.143	---	.203	.024
127	.410	---	.155	.393
<u>Dominance</u>				
15	.152	.516	---	---
24	.215	.311	---	---
30	.102	.487	---	---
39	.045	.653	---	---
55	.116	.409	---	---
77	.112	.245	---	---
95	.398	.311	---	---
107	.344	.402	---	---
110	.106	.086	---	---
111	.161	.595	---	---

Table 5

Principal Components Factor Analysis Results for
Dominance Across All Target Persons From the Pilot Study

Item	Target person		
	Factor1	Factor2	Factor3
3	.6703	.2837	.
4	.6077	.	.
12	.5304	-.2770	-.4143
15	-.5547	.4099	.
21	.6373	.	-.2459
23	.8331	.	.
24	-.2695	.	.4323
28	.6713	.	-.2520
30	-.2427	.7122	.2619
31	.8813	.	.
32	.8341	.	.
38	.2504	.	.
39	-.7237	.3791	.
40	.6698	.	.
42	.4611	-.2660	.
44	.5602	.	.
47	.7518	.	.
52	.7844	-.3107	.
53	.7933	-.2756	.
55	-.4264	-.4695	.
65	.4874	-.5278	-.2172
68	.7374	.2503	.
69	.4598	.	.2391
70	.5686	.3128	.
72	-.4462	-.5853	.
74	-.3032	-.3443	.
75	.	-.2155	.7625
77	.	-.2651	.6107
81	.2895	.3681	.2500
84	-.2140	-.2993	.4275
85	.4460	.	.2963
90	.6911	.3300	.
95	.	.7774	.
96	.2889	.2052	.3832
99	.5017	.	.
102	.6924	.	.
103	.8298	-.2196	.
107	-.4981	.	.
108	.8238	.	.
110	.	.	.5416
111	-.5336	.	.2637
136	.3755	.	-.2674
137	.6947	.	.
138	.2489	.	.3757
140	.3536	-.2719	.6284

(table continues)

Table 5
Principal Components Factor Analysis Results for
Dominance Across All Target Persons from the Pilot Study

Item	Target person		
	Factor1	Factor2	Factor3
3	.6988	.	.
4	.5787	.	.
12	.6984	.	.
15	.	.4553	.
21	.7502	-.2844	.
23	.4293	-.6575	.
24	.4350	.	.4651
28	.6562	-.2132	.
30	.3170	.5997	-.2611
31	.6278	-.3859	-.4062
32	.8601	-.2065	.
38	.4796	.	.4539
39	.	.7992	.
40	.6696	.3001	-.3674
42	.5860	.2624	.
44	.7311	.4440	.
47	.7946	.	-.2670
52	.8867	.	.
53	.8193	.	.
55	.	.3974	.
65	.7623	-.2360	.
68	.7789	.	-.3934
69	.7989	.	.
70	.6826	.2248	-.4053
72	.3979	.	.6124
74	.3457	-.2002	.5693
75	.6514	.2971	.0478
77	.2157	.4633	.
81	.7244	.2736	.
84	.4171	.	.5071
85	.5243	.	-.2453
90	.7474	.	.
95	.	.5416	.
96	.7046	.2779	.
99	.7179	-.4047	.
102	.8298	.	.
103	.8578	-.3202	.
107	.4319	.4824	.4178
108	.8777	.	-.2396
110	.5626	.	.4235
111	.	.7642	.
136	.3694	.	-.2209
137	.3308	.	-.5984
138	.6924	.	.
140	.4624	.	.2018

(table continues)

Table 5
Principal Components Factor Analysis Results for
Dominance Across All Target Persons from the Pilot Study

Item	Target person		Factor3
	Factor1	Factor2	
3	.5121	.	
4	.3064	.	-.2077
12	.6634	.	.2021
15	-.2626	.6086	.2842
21	.7889	-.2251	.
23	.3760	-.4751	.
24	.	-.2376	.6833
28	.7149	.3054	.2693
30	.	.7770	.
31	.6131	.	.
32	.7597	.	.
38	.6293	-.2349	.3789
39	-.2444	.6161	.
40	.5707	.	.
42	.7386	.3310	.
44	.3256	.	.
47	.7753	.2067	.
52	.6782	.	.
53	.7307	.	.
55	.	.	.2975
65	.3572	-.4049	.5091
68	.3418	.3953	-.6240
69	.6892	.	.
70	.6519	.4718	.
72	.3727	-.4537	.5019
74	.3659	.	.7817
75	.2952	.5804	.3036
77	.	.8169	.
81	.3620	.	-.3226
84	.4372	-.4638	.2144
85	.3746	.	-.7134
90	.7313	.2945	.
95	.	.8164	.2262
96	.6451	.	.
99	.4027	-.4009	.3694
102	.6941	.	.
103	.7861	.	.
107	.	.	.6108
108	.7567	.	.
110	.4153	.	.2520
111	-.3990	.5312	.5464
136	.3242	.2158	.3462
137	.5023	.4497	-.5035
138	.6590	.	.
140	.2379	.	-.2199

(table continues)

Table 5

Principal Components Factor Analysis Results for
Dominance Across All Target Persons from the Pilot Study

Item	Target person		
	Factor1	Factor2	Factor3
3	.2419		
4	.4110	.2851	
12	.6353	.2528	
15		.5229	.2439
21	.7669		-.3202
23	.6090		.2024
24		.5653	-.2981
28	.4250		.4057
30			.8114
31	.7311	-.2014	
32	.7140	-.2870	-.2637
38	.6293	.2294	.3141
39		.6535	.5224
40	.5991	-.3174	
42	.4682	-.3503	.3428
44	.5846		
47	.7352		
52	.6523		
53	.7422		
55		.5715	
65	.5050	.3907	-.3890
68	.7005	-.3038	-.2003
69	.3836		-.3584
70	.5041		.2423
72	.2219	.2710	-.4002
74	.3276	.6523	
75	.5102	.4727	
77		.3190	.6221
81	.4283	-.3975	
84	.5023	.5438	-.3783
85	.2179	-.4597	
90	.6458	-.2730	
95			.7858
96	.4584		
99	.4709		-.3487
102	.6955		
103	.5584		
107		.4668	
108	.5336		
110			.3242
111		.5525	.4488
136	-.2113	.3923	-.3593
137	.4277		
138	.4647	-.2505	.3916
140			-.2240

exploratory, the criterion for retaining an item for this scale was that it had to correlate .3 or greater with the scale mean for at least three of the four target persons (see Table 6).

A Cronbach's Alpha was computed for each construct scale for each target person from the pilot study in order to check internal consistency. This produced 16 coefficients which ranged from .777 to .966 (see Table 7) with ten (62.5%) of the coefficients above .9, and an additional 5 (31.5%) coefficients between .8 and .9 making a total of 15 of the 16 coefficients above .8 (93.8%).

Summary of the Pilot Study

The pilot study results provided useful information for altering the questionnaire for the main phase of the study. Correlation coefficients were used to help reduce the number of items on the social provisions and conflict scales. Principal Components Factor Analysis was implemented to provide information for the reduction of the dominance scale items. Both procedures were deemed successful as can be seen by the high Cronbach's Alpha coefficients for each scale. The questionnaire was reduced from 144 items to 105 items, that is, 35 items per scale.

Table 6

Item-Scale Correlations for the Revised Dominance Scale
from the Pilot Study

Item	Mother	Father	Sibling	Friend
3	.484	.685	.509	.333
4	.596	.568	.257	.371
12	.533	.685	.671	.581
21	.511	.709	.739	.756
23	.775	.424	.293	.454
28	.698	.670	.754	.489
31	.836	.625	.517	.684
32	.769	.865	.752	.702
38	.405	.474	.603	.602
40	.630	.582	.506	.436
42	.489	.584	.730	.452
44	.512	.686	.300	.479
47	.739	.778	.772	.701
52	.763	.863	.643	.681
53	.749	.836	.703	.756
65	.508	.747	.329	.447
68	.619	.727	.324	.600
69	.419	.790	.702	.451
70	.545	.666	.678	.578
72	-.324	.369	.352	.225
74	-.143	.337	.394	.409
75	.035	.621	.349	.559
81	.300	.667	.374	.390
84	-.094	.431	.357	.557
85	.443	.515	.356	.264
90	.694	.715	.725	.582
96	.327	.680	.621	.369
99	.422	.705	.373	.373
102	.724	.855	.692	.712
103	.830	.845	.764	.549
108	.759	.854	.727	.519
136	.345	.398	.413	.004
137	.648	.374	.530	.530
138	.238	.656	.632	.470
140	.416	.491	.280	.349

Table 7

Cronbach Alpha Coefficients for Pilot Study Data

Social provisions (mother)	.951
Social provisions (father)	.968
Social provisions (sibling)	.961
Social provisions (friend)	.959
Conflict (mother)	.966
Conflict (father)	.956
Conflict (sibling)	.954
Conflict (friend)	.953
Dominance (mother-incoming)	.886
Dominance (mother-outgoing)	.777
Dominance (father-incoming)	.921
Dominance (father-outgoing)	.915
Dominance (sibling-incoming)	.898
Dominance (sibling-outgoing)	.832
Dominance (friend-incoming)	.861
Dominance (friend-outgoing)	.866

The Main Study

Like the pilot test, the subjects for the main phase of the present study were a cross section of college students at the University of North Carolina at Greensboro, a four-year public university in the southeastern United States. The student body of the institution was predominantly female (approximately 70 percent). Subjects were recruited from designated required courses for majors in the College of Arts and Sciences, as well as from other courses whose professors allowed the distribution of questionnaires in their classes. The classes used included undergraduate courses at various levels in mathematics and computer science, western civilization, sociology, and chemistry. For a complete list of courses, see Table 8. During class time, students in the aforementioned classes were given a brief description of the study and asked to complete the questionnaire which they were instructed either to bring back to class during the next class period or to drop in campus mail. As incentive to encourage participation, names of students who chose to participate were entered in a random drawing in which four \$25.00 prizes were awarded. In addition, a pencil was provided to each student who received a questionnaire. Response rates were as follows: 795 questionnaires were distributed and of those, 397 were

Table 8

List of Courses Used for Distribution of Close Relationships Questionnaire in the Main Study

<u>Class used</u>	<u>Course name</u>	<u>Number of sections</u>
Chemistry 111:	General Chemistry	1
Computer Science 137:	Introductory Computer Programming	3
Economics 201:	Principles of Microeconomics	2
Mathematics 112:	Contemporary Topics in Mathematics	1
119:	College Algebra	5
121:	Analytic Trigonometry	2
191:	Calculus I	6
Sociology 211:	Introductory Sociology	2
232:	Introduction to Social Psychology	1
429:	Sociological Perspectives on Women	1
Statistics 108:	Elementary Introduction to Probability and Statistics	3
Western Civilization 101:	Western Civilization	1

returned (49.9%). Only respondents who stated they were from intact families of orientation, were between 17 and 23 years old, had never been married, and had at least one sibling were used in the analyses of the study, resulting in a total of 201 useable responses (25.3% of the total sample, 50.6% of all returned questionnaires).

After test packets were returned, data were manually entered on computer facilities and analyzed using the SAS statistical analysis package. Hypotheses 1 and 2 were tested at the .05 level of significance. Initially, scores for each scale were tested using the Hotelling's T^2 statistic to insure the existence of the domains (Hypothesis 1). The Hotelling's T^2 statistic is a multivariate t-statistic which tests that the scores are significantly greater than the minimum possible score.

Scores on the three scales and dummy-coded demographic information were entered into a multivariate profile analysis model to test a) whether the scores for social provisions, conflict, and dominance were at the same level for each category of target person; b) whether, in conjunction, the profile shapes for the three scores were different across the categories of target persons; and c) whether profiles were themselves distinct across categories of target persons (Hypothesis 2). Profile analysis is the appropriate analysis when nominal data from a battery of

tests are given to individuals in one or more groups, and one wants to test for differences in the levels and shapes of group profiles (Greenhouse & Geisser, 1959; Morrison, 1976). The profile analysis procedure tests for parallelism of profiles, for whether profiles are coincident (in other words, shapes of all profiles are identical), and for equality or homogeneity of response means. In the profile analyses for the present study, extraneous variability related to demographic characteristics such as gender, ordinal position, and amount of time spent with target persons was to be statistically controlled as these variables were entered in the model as covariates. Multivariate analysis of variance (MANOVA) was used to identify characteristics that accounted for a significant amount of extraneous variability. The Hotelling-Lawley trace approximation of the F-statistic was chosen as the test statistic for interpreting the multivariate analysis of variance results accompanying the profile analysis because of its power and ability to detect alternatives of the null hypothesis for large samples (Olson, 1975). Finally, factor analyses were performed on items for the three dimensions for each category of target person to explore whether unique aspects of each of the three dimensions characterize the relationship for any given category of target person

(Hypothesis 3).

Psychometric Properties of the Final Questionnaire

For the main study, the questionnaire was subjected to many of the same analytical procedures as the pilot study in order to gain understanding of the psychometric qualities of the measure. (A copy of the questionnaire used in the main phase of the study can be found in Appendix C). A separate item-scale correlation matrix for the social provisions scale, the conflict scale, and the dominance scale (separately for incoming dominance "over me" and outgoing dominance "me over him/her") was produced for each of the four target persons (see Table 9, Table 10, and Table 11). Item-scale correlation coefficients on the social provisions scale targeting mother ranged from .419 to .774; for fathers they ranged from .564 to .842, for emotionally closest sibling correlations they ranged from .545 to .795, and for friends the range was .316 to .737. On the conflict scale, item-scale correlation coefficients ranged from .436 to .791 targeting mothers, .379 to .807 for fathers, .314 to .764 for siblings, and .347 to .687 for best friend. The item-scale correlation coefficients for incoming dominance ("over me") were computed separately from outgoing dominance ("I dominate him/her"). Incoming dominance targeting mothers showed correlation

Table 9

Item-Scale Correlations for Social Provisions Targeting
Mother, Father, Sibling and Best Friend of Subjects in
the Main Study

Item	<u>Correlations</u>			
	Mother	Father	Sibling	Friend
1	.462	.634	.533	.317
2	.675	.694	.729	.548
6	.531	.719	.596	.510
11	.728	.768	.722	.605
16	.726	.843	.804	.547
18	.732	.725	.710	.537
19	.740	.740	.700	.499
24	.671	.708	.709	.560
33	.637	.709	.701	.508
35	.734	.762	.799	.670
37	.528	.681	.659	.616
47	.538	.706	.715	.591
49	.755	.783	.767	.561
57	.605	.697	.614	.605
58	.767	.750	.695	.640
59	.625	.712	.628	.546
65	.580	.691	.677	.568
66	.677	.665	.754	.652
71	.646	.666	.545	.391
73	.664	.682	.623	.512
75	.684	.778	.720	.619
76	.667	.779	.770	.731
79	.514	.576	.558	.355
80	.680	.740	.738	.627
84	.581	.614	.615	.668
85	.683	.690	.699	.662
86	.724	.766	.782	.738
90	.739	.784	.728	.502
92	.510	.681	.645	.516
93	.420	.564	.561	.495
94	.604	.692	.700	.688
95	.774	.813	.762	.512
96	.627	.643	.641	.624
101	.736	.757	.706	.500
103	.698	.802	.796	.646

Table 10

Item-Scale Correlations for Conflict Targeting Mother,
Father, Sibling and Best Friend of Subjects in the Main
Study

Item	<u>Correlations</u>			
	Mother	Father	Sibling	Friend
5	.683	.671	.587	.491
7	.669	.447	.594	.450
9	.784	.719	.667	.618
10	.640	.424	.688	.585
12	.640	.599	.632	.543
13	.672	.653	.646	.526
14	.722	.649	.721	.496
21	.585	.440	.524	.525
25	.686	.659	.744	.549
26	.633	.554	.639	.596
29	.697	.639	.744	.634
31	.661	.669	.657	.561
36	.524	.502	.556	.426
38	.685	.658	.627	.593
41	.686	.493	.640	.610
42	.675	.641	.705	.633
43	.585	.565	.549	.562
44	.721	.756	.723	.643
45	.594	.628	.652	.607
46	.720	.747	.765	.615
54	.751	.682	.744	.659
63	.639	.706	.659	.629
64	.657	.724	.673	.547
68	.584	.622	.635	.510
69	.578	.379	.722	.601
70	.570	.475	.632	.590
81	.693	.652	.667	.678
83	.728	.766	.682	.678
87	.676	.744	.671	.555
88	.723	.789	.700	.688
89	.791	.807	.718	.649
91	.673	.678	.652	.569
97	.437	.513	.315	.348
104	.501	.309	.379	.402
105	.593	.683	.661	.457

Table 11

Item-Scale Correlations for Dominance Targeting Mother,
Father, Sibling, and Best Friend of Subjects in the Main
Study

Item	<u>Correlations</u>			
	Mother	Father	Sibling	Friend
<u>Incoming</u>				
3	.514	.628	.612	.333
20	.690	.700	.700	.565
22	.687	.759	.689	.591
28	.573	.628	.595	.437
30	.523	.717	.646	.494
39	.601	.712	.603	.568
40	.700	.788	.758	.681
52	.625	.688	.601	.591
60	.624	.699	.687	.627
67	.752	.750	.777	.719
72	.647	.693	.661	.505
74	.662	.714	.644	.540
78	.774	.806	.785	.662
98	.448	.471	.505	.365
99	.596	.682	.739	.611
100	.587	.690	.663	.617
<u>Outgoing</u>				
4	.577	.613	.584	.430
8	.651	.730	.674	.505
15	.619	.749	.705	.551
17	.651	.700	.543	.486
23	.719	.747	.703	.553
27	.542	.595	.589	.384
32	.657	.735	.655	.574
34	.667	.795	.719	.500
48	.344	.503	.300	.259
50	.540	.597	.657	.454
51	.591	.684	.663	.539
53	.170	.421	.354	.297
55	.001	.160	.130	.063
56	.428	.555	.573	.475
61	.389	.556	.538	.437
62	.540	.674	.546	.509
77	.573	.725	.528	.586
82	.657	.704	.691	.535
102	.664	.641	.570	.526

coefficients ranging from .448 to .773; for fathers the coefficients ranged from .470 to .805; for siblings the range was .504 to .785; and for friends the coefficients ranged from .332 to .718. The ranges of item-scale coefficients for outgoing dominance were greater with the smallest coefficients being considerably smaller than the incoming dominance scale. For example, the range of correlation coefficients for outgoing dominance targeting mothers was from $-.0009$ to .719, for fathers the range was .160 to .794, for siblings coefficients ranged from .130 to .727, and for friends the range was from .063 to .573. Interestingly, the same item (55, "how often do you boss this person around") had the lowest item-scale correlation coefficient across all four target persons.

In order to check whether subscales were measuring redundant information, an overall matrix correlating each of the scales for each target person was derived (see Table 12). All correlation coefficients for both aspects of dominance with social provisions for the same target person were above .80. Likewise, the correlation coefficients for incoming dominance and outgoing dominance for identical target persons were above .80, with the exception of dominance (both incoming and outgoing) targeting friends. Although correlations between dominance scales were high, they were not deemed to be high enough to indicate that the

Table 12
Inter-Scale Correlations for Each Scale for Mother,
Father, Sibling, and Best Friend of Subjects in the Main
Study

	Conflict	Incoming dominance	Outgoing dominance
<u>Mother</u>			
Social provisions	-.478	.867	.856
Conflict	1.000	-.577	-.489
Incoming dominance		1.000	.852
Outgoing dominance			1.000
<u>Father</u>			
Social provisions	-.609	.893	.906
Conflict	1.000	-.684	-.622
Incoming dominance		1.000	.892
Outgoing dominance			1.000
<u>Sibling</u>			
Social provisions	-.399	.891	.864
Conflict	1.000	-.534	-.406
Incoming dominance		1.000	.849
Outgoing dominance			1.000
<u>Friend</u>			
Social provisions	-.322	.829	.750
Conflict	1.000	-.408	-.223
Incoming dominance		1.000	.785
Outgoing dominance			1.000

two scales were measuring redundant information.

The correlation coefficients between scales for mother ranged from .867 (between social provisions and incoming dominance) to $-.478$ (between social provisions and conflict). For fathers, the coefficients ranged from .907 (between social provisions and outgoing dominance) to $-.609$ (between social provisions and conflict). The correlation coefficients between scales for siblings ranged from .891 (between social provisions and incoming dominance) to $-.399$ (between social provisions and conflict). Finally, for best friends the coefficients ranged from .829 (between social provisions and incoming dominance) and $-.223$ (between conflict and outgoing dominance).

A separate Cronbach's Alpha coefficient was computed for each of the three scales--two were computed for the dominance scale to reflect incoming dominance and outgoing dominance--for each of the four target persons. The coefficients can be seen in Table 13. As can be noted, the Cronbach's Alpha coefficients from the main study differed little from those generated in the pilot study. Here 11 of the coefficients were above .9 (68.8%) with an additional 4 (25.0%) between .8 and .9.

Table 13

Cronbach Alpha Coefficients for Data from the Main Study

Social provisions (mother)	.959
Social provisions (father)	.972
Social provisions (sibling)	.967
Social provisions (friend)	.937
Conflict (mother)	.960
Conflict (father)	.952
Conflict (sibling)	.959
Conflict (friend)	.937
Dominance (mother-incoming)	.887
Dominance (mother-outgoing)	.851
Dominance (father-incoming)	.922
Dominance (father-outgoing)	.915
Dominance (sibling-incoming)	.912
Dominance (sibling-outgoing)	.886
Dominance (friend-incoming)	.837
Dominance (friend-outgoing)	.779

Summary of Main Study

Close relationships questionnaires were distributed to 795 students from a variety of classes. Of the 397 questionnaires returned, a total of 201 questionnaires were useable. Data collected from students allowed for further assessment of the psychometric properties of the questionnaire. All the psychometric information concerning the questionnaire, can be found in Tables 9 through 13. Demographic as well as questionnaire data collected allowed for developing the most parsimonious model for testing the hypotheses of the study, as well as comparisons of the present results with conclusions from previous research.

CHAPTER IV

RESULTS

The purpose of the present study was to assess three different affective constructs of closeness--social provisions, conflict, and dominance--across four types of primary dyads--mother-self, father-self, sibling-self and best friend-self. To attempt to measure these constructs, a questionnaire was developed by adapting items from existing questionnaires, as well as adding new items as deemed needed. This questionnaire was then pilot tested in order to gain information on the psychometric properties of the instrument in addition to getting suggestions from pilot study subjects to help in constructively revising the demographic questions and format of the questionnaire. After alterations were made, the final version of the questionnaire was administered to the subjects of main interest for the present study.

Pilot Study

Demographic Characteristics of Pilot Study Subjects

The pilot study sample consisted of 31 female students and one male student completing the initial version of the instrument (see Table 14). A total of 31 questionnaires

Table 14

Demographic Characteristics of Pilot Study Subjects

<u>Characteristic</u>	<u>Percentage</u>	<u>Frequency</u>
<u>Gender</u>		
Females	96.9%	31
Males	3.1%	1
Total	100.0%	32
<u>Age</u>		
19	6.3%	2
20	37.5%	12
21	31.3%	10
22	12.5%	4
23	3.1%	1
25	3.1%	1
26	3.1%	1
31	3.1%	1
Total	100.0%	32
<u>Race</u>		
Black	18.8%	6
White	81.2%	26
Total	100.0%	32

were complete and therefore useable. The demographic composition of the sample was as follows: the age range of the subjects was 19 to 31 years old with 81.3% of the subjects 20 to 22 years old. The racial composition consisted of 6 blacks (18.7%) and 26 whites (81.2%). Twenty of the subjects had sisters (68.9%), 20 had brothers (68.9%), 1 reported having stepsisters, and 1 reported having stepbrothers (see Table 15). Of the pool of pilot study subjects, 26 came from intact families of orientation (81.2%), and 6 came from other types of families (18.7%). Twenty-eight of the subjects were single (87.5%) and 4 were married (12.5%).

The ages of the siblings to whom subjects felt closest ranged from 12 years old to 36 years old (see Table 16). Of these same siblings, 12 were males (41.4%) and 17 were females (58.6%), which indicated subjects were only somewhat more likely to choose sisters as their closest sibling than they were to choose brothers. In addition, subjects were about twice as likely to choose siblings who were nearest in age to them (i.e., n=19 or 65.5%) than siblings who were not nearest in age (i.e., n=10 or 34.5%).

As can be seen in Table 17, same-sex best friends ranged in age from 19 years old to 30 years old. The length of time subjects reported having known best friends

Table 15

Family Composition Characteristics of Pilot StudySubjects

<u>Characteristic</u>	<u>Percentage</u>	<u>Frequency</u>
<u>Number of siblings</u>		
Brothers	68.9%	20
Sisters	68.9%	20
Stepbrothers	3.1%	1
Stepsisters	3.1%	1
<u>Family type¹</u>		
Intact	81.2%	26
Single Parent	18.7%	6
Other		
Total	100.0%	32
<u>Marital status²</u>		
Unmarried	87.5%	28
Married	12.5%	4
Total	100.0%	32

¹Family of orientation²Family of procreation

Table 16

Demographic Characteristics of Emotionally Closest
Siblings of Pilot Study Subjects

<u>Characteristic</u>	<u>Percentage</u>	<u>Frequency</u>
<u>Age</u>		
12	3.4%	1
16	3.4%	1
17	3.4%	1
18	6.9%	2
20	3.4%	1
23	10.3%	3
24	13.8%	4
25	3.4%	1
26	17.2%	5
27	10.3%	3
28	3.4%	1
29	3.4%	1
30	3.4%	1
32	3.4%	1
33	6.9%	2
36	3.4%	1
<u>Total</u>	<u>100.0%</u>	<u>29</u>
<u>Sibling gender</u>		
Female	58.6%	17
Male	41.4%	12
<u>Total</u>	<u>100.0%</u>	<u>29</u>
<u>Sibling nearest in age</u>		
Yes	65.6%	19
No	34.5%	10
<u>Total</u>	<u>100.0%</u>	<u>29</u>

Table 17

Demographic Characteristics of Same-Sex Best Friends of
Pilot Study Subjects

<u>Characteristic</u>	<u>Percentage</u>	<u>Frequency</u>
<u>Friend age</u>		
19	12.5%	4
20	37.5%	12
21	21.9%	7
22	6.3%	2
24	3.1%	1
25	6.3%	2
27	3.1%	1
30	3.1%	1
<u>Total</u>	<u>100.0%</u>	<u>32</u>

How long known
friend (in years)

0.7	6.3%	2
1	3.1%	1
2	15.6%	5
3	6.3%	2
4	9.4%	3
5	6.3%	2
6	3.1%	1
7	6.3%	2
8	6.3%	2
9	3.1%	1
10	12.5%	4
13	6.3%	2
15	6.3%	2
16	3.1%	1
17	3.1%	1
20	3.1%	1
<u>Total</u>	<u>100.0%</u>	<u>32</u>

ranged from nine months to 20 years.

Main Study

Demographic Characteristics of the Main Study Subjects

The demographic profile of the respondents is described below and reiterated in Table 18. The subjects ranged in age from 17 to 23 years old with 92.5% of them between 18 and 21 years old. Fifty of the subjects in the sample were males (24.9%) and 151 were females (75.1%). Thirty-four of the subjects reported that they lived at home with their parents (16.9%), while 167 reported having other living arrangements (e.g., campus dormitory or own apartment, 83.1%). Most of the subjects were freshmen (n=112, 55.7%), 46 were sophomores (22.9%), 32 were juniors (15.9%) and 11 were seniors (5.5%). The racial composition was 21 black respondents (10.5%), 176 white respondents (88%), and 3 of other races (1.5%).

In the close relationships framework, the amount of time members in a relationship spend together may impact on the range and types of activities in which the members of the dyad engage (Kelley et al., 1983); therefore, this information was asked of the subjects in the present study. Subjects varied in the extent to which they had contact with persons in their social networks. The number of respondents who reported seeing their mothers and fathers

Table 18

Demographic Characteristics of Subjects in the Main Study

<u>Characteristic</u>	<u>Percentage (%)</u>	<u>Frequency (N)</u>
<u>Age</u>		
17	1.0%	2
18	29.4%	59
19	31.8%	64
20	20.9%	42
21	19.4%	21
22	5.0%	10
23	1.5%	3
<u>Total</u>	<u>100.0%</u>	<u>201</u>
<u>Gender</u>		
Male	24.9%	50
Female	75.1%	151
<u>Total</u>	<u>100.0%</u>	<u>201</u>
<u>Living arrangement</u>		
With parents	16.9%	34
In dorm	61.7%	124
Apartment/house	21.4%	43
<u>Total</u>	<u>100.0%</u>	<u>201</u>
<u>Class</u>		
Freshmen	55.7%	112
Sophomore	22.9%	46
Junior	15.9%	32
Senior	5.5%	11
<u>Total</u>	<u>100.0%</u>	<u>201</u>
<u>Race</u>		
Black	10.5%	21
White	88.0%	176
Other	1.5%	3
<u>Total</u>	<u>100.0%</u>	<u>200</u>

daily was 38 (19.9%) and 36 (19.5%) respectively (see Table 19). Having seen mothers and fathers twice or more per week was reported by 40 (20.9%) and 41 (22.2%), respectively. Sixty-nine saw mothers (36.1%) and 65 saw fathers (35.1%) twice or more often per month. Mothers were seen several times per year by 43 of the subjects (22.5%), and fathers were seen several times per year by 41 of the subjects (22.2%). Only 1 (0.5%) and 2 (1.1%) rarely or never saw their mothers and fathers, respectively.

Seventy-four of the subjects were oldest children in their families (37.9%), 53 were middle in ordinal position (27.2%), and 68 were the youngest of their siblings (34.9%) (see Table 20). Of those subjects having older brothers, 58 had one older brother (29.6%), 18 had two older brothers (9.2%), and 2 had three older brothers (1%). Of those subjects having younger brothers, 55 had one younger brother (28.5%), 17 had two younger brothers (8.8%), and one had three younger brothers (0.5%). Of those subjects having older sisters, 44 had one older sister (22.8%), 23 had two older sisters (11.9%), five had three older sisters (2.6%), and one had four older sisters (0.5%). Of those subjects having younger sisters, 60 had one younger sister (31.3%), 11 had two younger sisters (5.7%). Overall, the distribution of sibling gender was nearly equal with 93 of the subjects listing a brother as the sibling to whom they

Table 19

Frequencies of Seeing Parents, Closest Sibling, and Best Friend in the Main Study

<u>Frequency</u>	<u>Mother</u> % (N)	<u>Father</u> % (N)
Daily	19.9% (38)	19.5% (36)
Twice or more weekly	20.9% (40)	22.2% (41)
Twice or more monthly	36.1% (69)	35.1% (65)
Several times per year	22.5% (43)	22.2% (41)
Rarely/never	0.5% (1)	1.19% (2)

<u>Frequency</u>	<u>Sibling</u> % (N)	<u>Friend</u> % (N)
Daily	15.2% (30)	36.0% (72)
Twice or more weekly	20.2% (40)	17.0% (34)
Twice or more monthly	36.9% (73)	21.0% (42)
Several times per year	25.8% (51)	24.5% (49)
Rarely/never	2.0% (4)	1.5% (3)

Table 20

Family Characteristics of Subjects in the Main Study

<u>Characteristic</u>	<u>Percentage</u>	<u>Frequency</u>
<u>Ordinal position</u>		
Oldest	37.9%	74
Middle	27.2%	53
Youngest	34.9%	68
Total	100.0%	195
<u>Number of siblings</u>		
Older brothers		
1	29.6%	58
2	9.2%	18
3	1.0%	2
Younger brothers		
1	28.5%	55
2	8.8%	17
3	0.5%	1
Older sisters		
1	22.8%	44
2	11.9%	23
3	2.6%	5
4	0.5%	1
Younger sisters		
1	31.3%	60
2	5.7%	11

(table continues)

Table 20

Family Characteristics of Subjects in the Main Study

<u>Characteristic</u>	<u>Percentage</u>	<u>Frequency</u>
<u>"Closest"</u>		
<u>sibling age</u>		
5	1.0%	2
6	0.5%	1
9	0.5%	1
10	1.0%	2
11	1.0%	2
12	1.5%	3
13	2.5%	5
14	5.5%	11
15	6.5%	13
16	9.0%	18
17	13.0%	26
18	3.5%	7
19	3.5%	7
20	6.0%	12
21	9.5%	19
22	6.0%	12
23	8.5%	17
24	4.5%	9
25	4.5%	9
26	2.0%	4
27	1.5%	3
28	3.5%	7
29	1.0%	2
30	1.5%	3
31	1.0%	2
32	0.5%	1
37	0.5%	1
40	0.5%	1
Total	100.0%	200

Closest sibling
nearest in age?

Yes	75.4%	150
No	24.6%	49
Total	100.0%	199

felt emotionally closest (46.7%), and 106 listing a sister as the sibling to whom they felt closest (53.3%) (see Table 21). At a closer look, this equal distribution was especially true for males, whereas female subjects were more likely to list a sister as the sibling to whom they felt closest. Most subjects reported the sibling nearest in age to them as the sibling to whom they felt emotionally closest (n=150, 75.4%) (see Table 20).

The reported ages of siblings designated as emotionally closest ranged from five years old to 40 years old (see Table 20). The reported ages for same-sex best friends ranged from 17 years old to 43 years old (Table 22). Thirty of the respondents reported seeing their emotionally closest sibling daily (15.2%), 40 saw them two or more times per week (20.2%), 73 reported seeing their sibling 2 or more times monthly (36.9%), 51 reported seeing their sibling several times per year (25.8%), and 4 stated that they rarely or never saw their closest sibling (2%) (see Table 19). For same-sex best friends, 72 subjects stated that they saw their friends daily (36%), 34 reported seeing their best friends two or more times per week (17%), 42 stated that they saw their best friends two or more times per month (21%), 49 stated that they saw their best friends several times per year (24.5%), and finally 3 stated that they rarely or never saw their best

Table 21

Gender of Closest Sibling and Gender of Subject in the
Main Study

<u>Subject Gender</u>	<u>Sibling Gender</u>	
	<u>Female</u>	<u>Male</u>
	<u>Percentage</u>	<u>Frequency</u>
Female	40.7%	81
Male	12.6%	25
<u>Total</u>	<u>53.3%</u>	<u>106</u>

<u>Subject Gender</u>	<u>Sibling Gender</u>	
	<u>Female</u>	<u>Male</u>
	<u>Percentage</u>	<u>Frequency</u>
Female	34.2%	68
Male	12.6%	25
<u>Total</u>	<u>46.8%</u>	<u>93</u>

Table 22

Demographic Characteristics of Best Friends of Subjects
in the Main Study

<u>Characteristic</u>	<u>Percentage</u>	<u>Frequency</u>
<u>Friend Age</u>		
17	1.0%	2
18	20.9%	42
19	37.3%	75
20	19.9%	40
21	8.5%	17
22	6.0%	12
23	3.0%	6
24	1.0%	2
26	1.0%	2
29	0.5%	1
31	0.5%	1
43	0.5%	1
Total	100.0%	201

<u>Characteristic</u>	<u>Percentage</u>	<u>Frequency</u>
<u>How long known friend (in years)</u>		
0.5	0.5%	1
1	15.9%	32
2	9.0%	18
3	10.0%	20
4	12.4%	25
5	9.5%	19
6	6.0%	12
7	5.5%	11
8	4.0%	8
9	4.0%	8
10	6.0%	12
11	2.0%	4
12	3.0%	6
13	2.5%	5
14	2.5%	5
15	3.0%	6
16	0.5%	1
18	1.5%	3
19	2.0%	4
21	0.5%	1
Total	100.0%	201

friend (1.5%) (see Table 19). The length of time respondents reported that they had known their best friend ranged from 6 months to 21 years (see Table 22).

Tests of Hypotheses

In the interest of comparing results from the present study with results reported in the literature, as well as fitting the most parsimonious model of variables, several demographic (categorical) variables were entered in consecutive multivariate analysis of variance (MANOVA) procedures preliminary to testing the research hypotheses. By doing so, exploration of variables reported in previous literature examined whether these variables' influence existed in the population of interest here since most previous research had been conducted on younger subjects. Variables found not to be influential factors were omitted from the model. Consequently, variables found to be influential factors were included in the model to add further explanatory power of the phenomena being studied.

The categorical variables for which MANOVAs were generated comprised gender of subject; subject's living arrangement (with parents, in the dorm, or in an apartment or house); subject's race (black, white, or other); subject's ordinal position (oldest, middle, or youngest); ordinal position of the subject's sibling relative to the

subject (older, or younger); the frequency with which the subject saw his or her mother, father, sibling, or friend (daily, 2 or more times weekly, 2 or more times monthly, several times per year, or rarely/never); the sibling's gender; whether the sibling is nearest in age to the subject; and finally the subject's gender, the sibling's gender, and the sibling's ordinal position entered simultaneously and tested for interactions.

At the .05 significance level of significance, the MANOVAS showed that only subject's gender and sibling's gender were significant variables in explaining scores on the constructs being measured herein (see Table 23). Therefore, only subject's gender and sibling's gender were entered in the final profile analysis model. Further discussion of the nonsignificant findings of other categorical variables in contrast to existing literature appears in the subsequent chapter.

The results of the tests of hypotheses will be discussed as follows: the overall test of hypotheses 1 and 2 will be discussed first, followed by a report of specific aspects of each hypothesis. Finally a general discussion of Hypothesis 3 will ensue.

Hypothesis 1: Social provisions, conflict, and dominance each exist to some extent in the subjects' perceptions of

Table 23

Multivariate Analysis of Variance Results for
Categorical Demographic Variables

<u>Categorical variable</u>	<u>F</u>	<u>d'f</u>	<u>p-value</u>
Sex	7.29	1,199	.0076**
Living arrangement	2.61	2,198	.0764
Race	0.39	2,197	.6744
Ordinal position	1.08	2,192	.3401
Sibling ordinal position	1.96	1,196	.1630
Frequency see mom	0.17	4,186	.9526
Frequency see dad	0.62	4,180	.6479
Frequency see sibling	0.72	4,193	.5789
Frequency see friend	0.51	4,197	.7257
Sibling's sex	5.15	1,197	.0243*
Sibling nearest in age	0.77	1,197	.3812

*p<.05

**p<.01

their relationships with mother, father, emotionally closest sibling, and same-sex best friend.

A multivariate T^2 statistic was computed to determine whether, taken simultaneously, the scores on the 16 scales exist to some extent (i.e., they are statistically significantly greater than the minimum possible score, 1). Including all scales simultaneously allows for determining whether one or more of the scales exist. Results of this calculation indicated acceptance of Hypothesis 1 that the mean scores for the scales significantly exist to some extent, $T^2(1,200) = 24,846.90, p < .001$. Closer inspection of the univariate tests revealed that each of the 16 construct scores was significant at the .001 level (see Table 24). In summary, it was found that familial (parent-child, sibling-sibling) and best friend relationships were characterized by the existence of each of the affective and behavioral activities measured (i.e., social provisions, conflict, and dominance). This finding confirmed the propositions of Kelley et al. (1983) and resulted in accepting Hypothesis 1. Mean scale scores can be found in Table 27; in addition, mean scores are plotted in Figure 1.

Hypothesis 2: Social provisions, conflict, and dominance will be at different levels within each category of target

Table 24

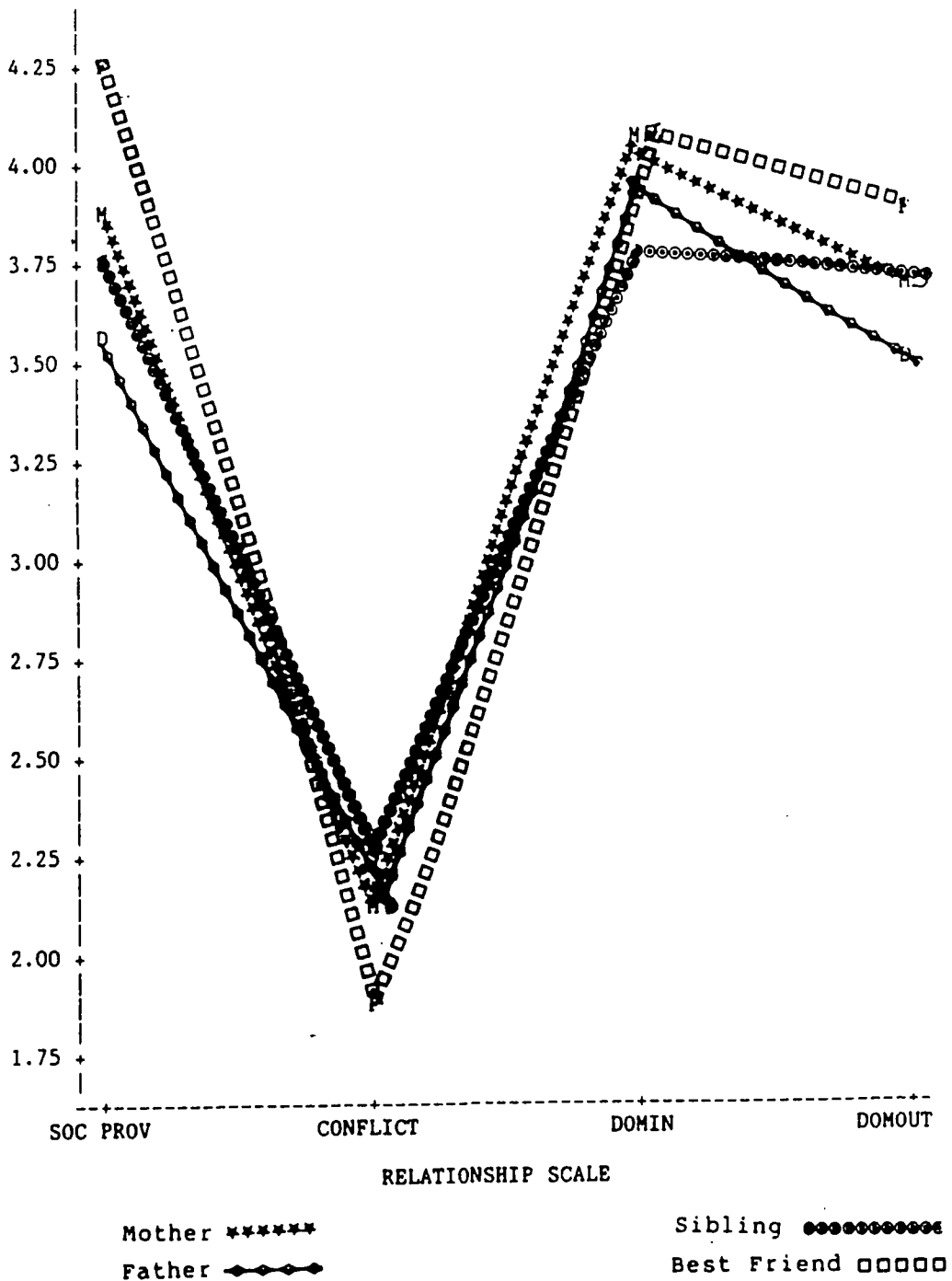
Univariate Analyses of Variance on Scale ScoresFollowing the Hotelling's T^2 Statistic

	F	p-value
<u>Social provisions</u>		
Mother	4347.04	<.0001
Father	2254.92	<.0001
Sibling	2994.08	<.0001
Friend	9267.44	<.0001
<u>Conflict</u>		
Mother	764.49	<.0001
Father	798.30	<.0001
Sibling	847.32	<.0001
Friend	767.87	<.0001
<u>Incoming dominance</u>		
Mother	6838.06	<.0001
Father	4079.44	<.0001
Sibling	3827.64	<.0001
Friend	9267.27	<.0001
<u>Outgoing dominance</u>		
Mother	7428.64	<.0001
Father	3552.50	<.0001
Sibling	5492.03	<.0001
Friend	14243.93	<.0001

Note: d'f = 4,196 for all F-statistics

Figure 1

Plot of Scale Means for Each Construct Across Target Persons for Total Sample



person, and furthermore, will be different between the categories of target persons.

To address Hypothesis 2 a profile analysis was performed entering all 16 construct scale scores, in addition to subject gender and sibling gender, simultaneously into the model. The profile analysis results indicated that construct scores, considered simultaneously, were significantly different at the .05 level. Furthermore, mean construct scores differed significantly between subject gender, $F(1,196) = 7.00$, $p < .01$, and sibling gender, $F(1,196) = 4.85$, $p < .05$ (see Table 25). Therefore, Hypothesis 2 was accepted. Results from the separate univariate and multivariate tests indicated specifically where the differences occurred.

The results of the MANOVAs on all 16 construct scale scores will be considered next. The test statistic used was the F approximation of the Hotelling-Lawley trace. It was found that there was a significant overall difference between construct scale scores, $F(3, 194) = 259.61$, $p < .0001$. Further, these statistically significant differences existed for subject gender, $F(3, 194) = 5.41$, $p < .001$, but not for sibling gender, $F(3, 194) = .58$, $p > .05$. Significant differences were also found among scores for target persons, $F(3, 194) = 19.95$, $p < .0001$. Interestingly, there was no significant subject gender difference across

Table 25

Profile Analysis Results

Effects	<u>Hotelling- Lawley trace statistic</u>	F	d'f	p-value
Sex	N.A.	7.00	1,196	.0088**
Sibsex	N.A.	4.85	1,196	.0289*
Scales	4.015	259.61	3,194	<.0001***
Scale x sex interaction	0.084	5.41	3,194	.0014**
Scale x sibsex interaction	0.009	0.58	3,194	.6303
Target person	0.308	19.95	3,194	.0001***
Target person x sex interaction	0.026	1.67	3,194	.1745
Target person x sibsex interaction	0.100	6.49	3,194	.0003***
Scale x target person interaction	2.002	41.83	9,188	<.0001***
Scale x target person x sex interaction	0.094	1.98	9,188	.0442*
Scale x target person x sibsex interaction	0.166	3.46	9,188	.0006***

* p<.05

** p<.01

***p<.001

target persons' scores, $F(3,194) = 1.67, p > .05$; conversely, there was a significant sibling gender difference across target persons' scores, $F(3,194) = 6.49, p < .001$. Not surprisingly, there was a significant difference between scale scores for different target persons, $F(9,188) = 41.83, p < .001$. Scores across target persons differed significantly for subject gender, $F(9,188) = 1.98, p < .05$, as well as for sibling gender, $F(9,188) = 3.46, p < .001$.

The univariate tests offered even more illumination as to subject gender and sibling gender related differences in the scale scores (see Table 26). It was found that while there was a significant difference in social provisions targeting mother due to subject gender, there was no sibling gender effect. The direction of the gender difference can be seen in Table 27. The mean score for social provisions targeting mother for females was higher than the male subjects' mean social provisions score. Social provisions targeting father showed no differences for either subject or sibling gender. Differences in social provisions targeting siblings were significant for both subject gender and sibling gender. The mean social provisions score targeting sibling for female subjects and subjects with female siblings were higher than the mean for subjects with male siblings. Like social provisions targeting mother, significant differences

Table 26

Univariate Analysis of Variance Tests for DifferencesBetween Scores

Scale	Gender		Sibling gender	
	F	p-value	F	p-value
<u>Mother</u>				
Social provisions	7.35	.0073**	0.43	.5120
Conflict	0.00	.9509	5.59	.0190*
Incoming dominance	4.99	.0266*	0.01	.9339
Outgoing dominance	1.23	.2686	0.12	.7284
<u>Father</u>				
Social provisions	.72	.3963	0.58	.4482
Conflict	1.45	.2298	5.55	.0195*
Incoming dominance	1.34	.2489	0.01	.9233
Outgoing dominance	0.20	.6590	0.09	.7643
<u>Sibling</u>				
Social provisions	9.03	.0030**	11.16	.0010**
Conflict	.52	.4697	3.80	.0526
Incoming dominance	4.79	.0298*	3.56	.0608
Outgoing dominance	4.28	.0399*	11.32	.0009***
<u>Friend</u>				
Social provisions	27.51	.0001***	0.34	.5616
Conflict	2.75	.0991	5.38	.0215*
Incoming dominance	12.66	.0005***	0.00	.9595
Outgoing dominance	4.87	.0286*	2.14	.1451

Note: d'f = 1,196 for all F-statistics

* p<.05

** p<.01

***p<.001

Table 27

Scale Means for Gender Groups Across Target Persons

SCALE	Total Sample		Males		Females		Male Siblings		Female Siblings	
	Mean	STD	Mean	STD	Mean	STD	Mean	STD	Mean	STD
Social provisions										
Mother	3.90	.623	3.69	.579	3.96	.623	3.92	.638	3.87	.616
Father	3.56	.765	3.48	.779	3.59	.761	3.60	.720	3.52	.809
Sibling	3.75	.712	3.50	.771	3.83	.674	3.57	.679	3.91	.708
Friend	4.22	.475	3.94	.447	4.32	.446	4.20	.520	4.25	.435
Conflict										
Mother	2.14	.587	2.15	.631	2.14	.574	2.05	.539	2.24	.614
Father	2.15	.575	2.24	.641	2.12	.551	2.05	.515	2.24	.611
Sibling	2.28	.622	2.33	.734	2.26	.582	2.19	.552	2.36	.669
Friend	1.89	.457	1.99	.469	1.86	.451	1.82	.457	1.96	.448
Incoming dominance										
Mother	4.07	.526	3.92	.454	4.12	.540	4.06	.520	4.07	.537
Father	3.94	.653	3.84	.646	3.97	.654	3.94	.620	3.93	.687
Sibling	3.74	.628	3.58	.695	3.79	.597	3.65	.612	3.82	.634
Friend	4.04	.448	3.85	.399	4.11	.447	4.04	.494	4.05	.407
Outgoing dominance										
Mother	3.67	.439	3.61	.400	3.69	.451	3.66	.446	3.68	.438
Father	3.48	.590	3.45	.627	3.49	.580	3.49	.544	3.47	.635
Sibling	3.66	.509	3.54	.578	3.70	.479	3.53	.510	3.77	.487
Friend	3.89	.344	3.80	.321	3.92	.347	3.85	.361	3.93	.329

in social provisions targeting best friend were found for subject gender but not sibling gender. Again, the mean for social provisions for female subjects surpassed the mean for social provisions for males as well.

Subject gender and sibling gender differences for conflict targeting mother were nonsignificant, while differences in conflict targeting father were significant for sibling gender but not for subject gender (again following the same pattern of females having a higher mean). Interestingly, subject and sibling gender differences in conflict targeting sibling, like conflict targeting mother, were not statistically significant. Conflict targeting friend was identical to conflict targeting father, wherein differences were found regarding sibling gender but not subject gender, the results being in the same direction for females as differences described heretofore.

Neither incoming dominance nor outgoing dominance targeting mother was significantly different for subject or sibling gender. This conclusion was identical for incoming dominance and outgoing dominance targeting father. Both incoming dominance and outgoing dominance targeting sibling were significantly different between male and female subjects (with female subjects' mean being higher), but only outgoing dominance was significantly

different between male and female siblings (again females' mean was higher). Differences in incoming as well as outgoing dominance targeting best friend were significant for subject gender (females' mean higher), but not sibling gender. Plots of the means for male and female subjects can be found in Figures 2 and 3, respectively; means for male siblings and female siblings can be found in Figures 4 and 5, respectively.

The range of possible mean scale scores for each construct was from 1 to 5. Item values were reversed so that a score of 1 indicated low satisfaction/frequency, and a score of 5 indicated high satisfaction/frequency. To address the following four hypotheses, mean scale scores on each construct were ranked across target persons to gauge each target person's standing relative to other target persons on a particular construct (see Table 28). Graphic illumination of the means ranked and plotted can be found in Figures 1 through 5.

Hypothesis 2a: Mother will be characterized with high social provisions, low dominance, and low conflict.

The overall social provisions mean score targeting mother ranked second only to social provisions targeting best friend, thereby confirming the portion of Hypothesis 2a stating that mothers will be characterized by high

Figure 2

Plot of Scale Means for Each Construct Across Target Persons for Male Subjects

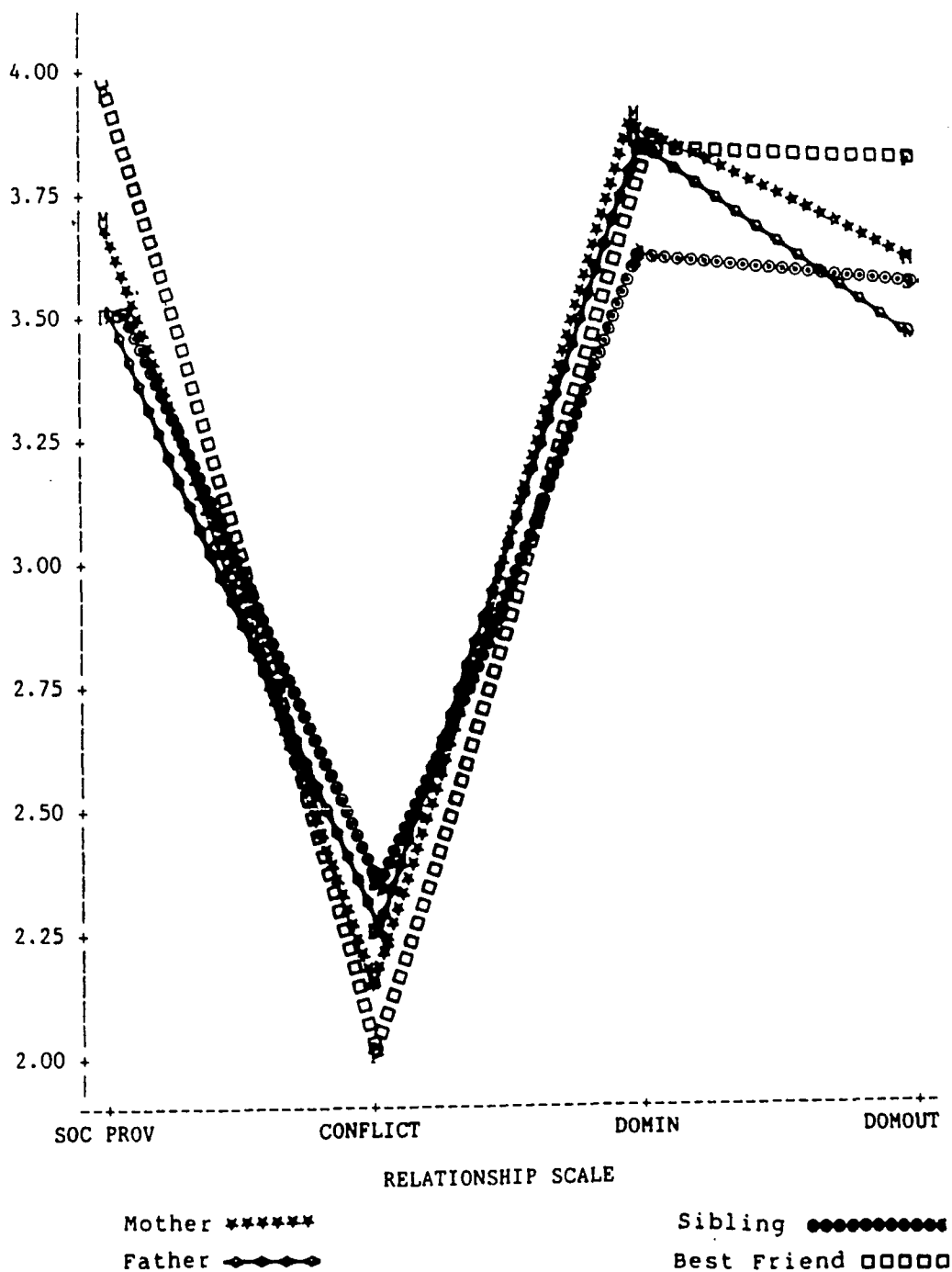


Figure 3

Plot of Scale Means for Each Construct Across Target Persons for Female Subjects

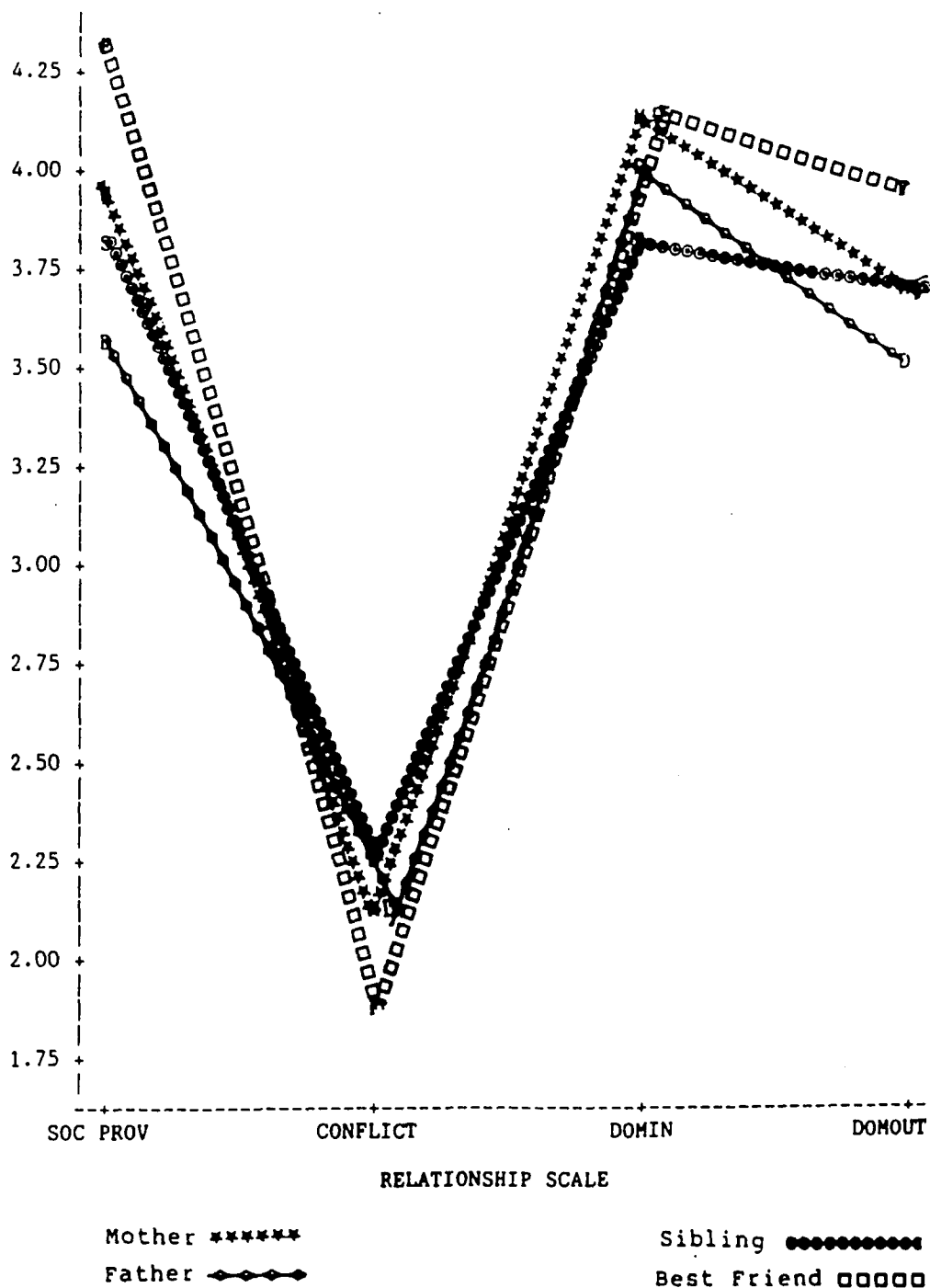


Figure 4

Plot of Scale Means for Each Construct Across Target Persons for Subjects with Male Sibings

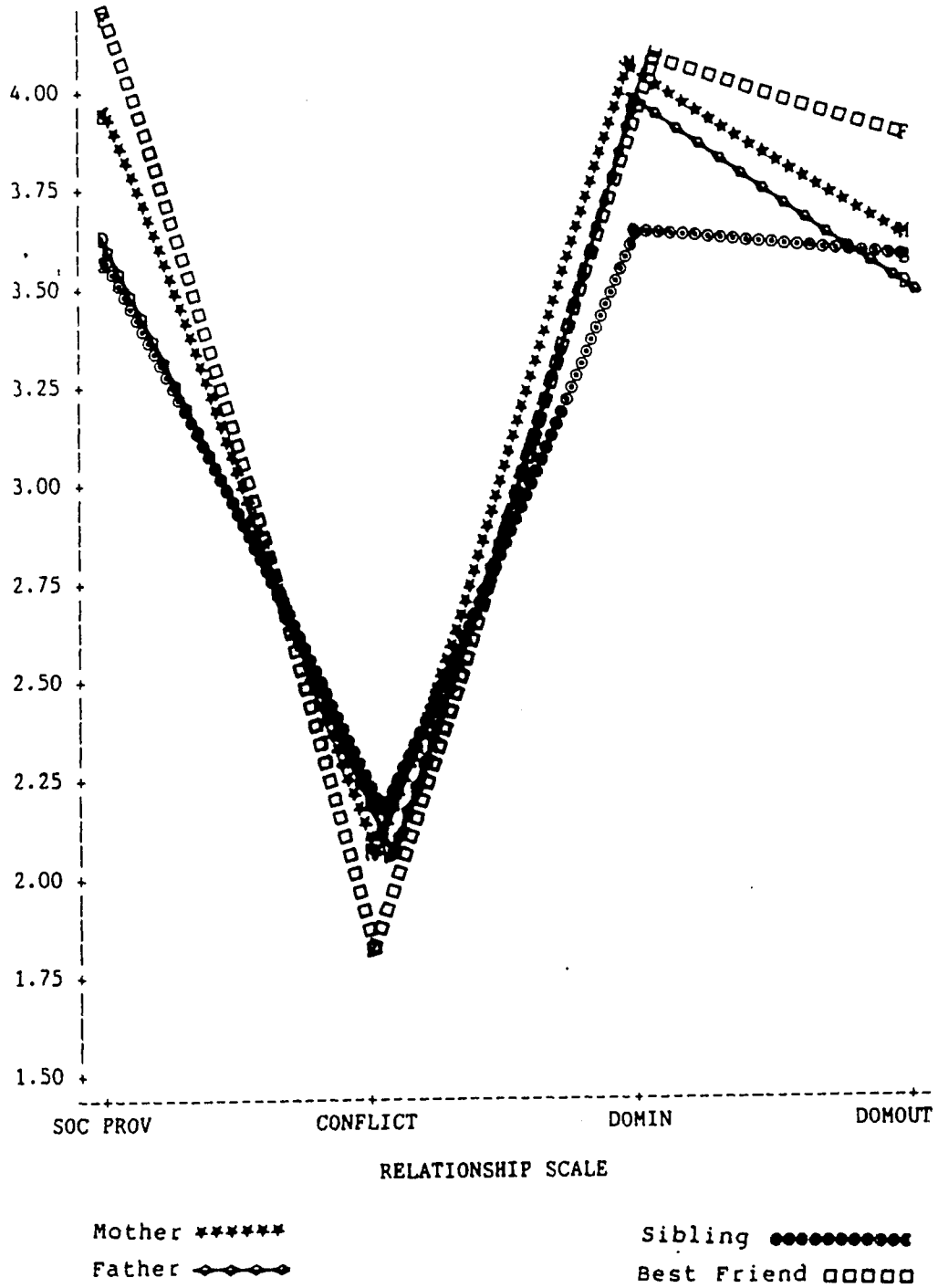


Figure 5

Plot of Scale Means for Each Construct Across Target Persons for Subjects with Female Siblings

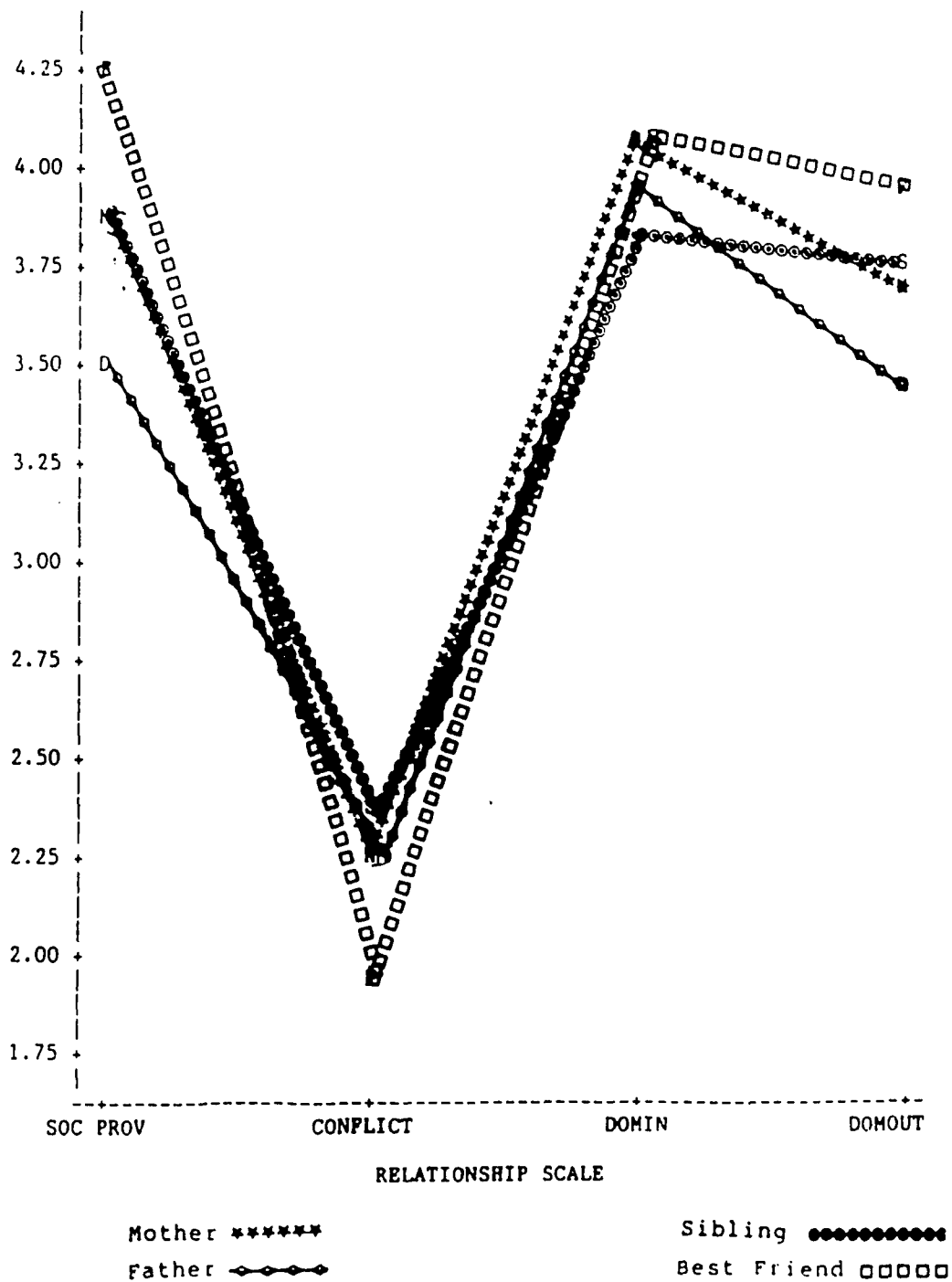


Table 28

Relative Rankings of Scale Means Across Target Persons
in the Main Study

	<u>Rankings</u>			
	<u>SP</u>	<u>C</u>	<u>ID</u>	<u>OD</u>
<u>Target person</u>				
<u>Total sample</u>				
Mother	2	2	2	3
Father	4	3	3	4
Sibling	3	1	4	2
Friend	1	4	1	1
<u>Males</u>				
Mother	2	3	1	2
Father	3	2	2	4
Sibling	4	1	4	3
Friend	1	4	3	1
<u>Females</u>				
Mother	2	3	2	3
Father	4	2	3	4
Sibling	3	1	4	2
Friend	1	4	1	1
<u>Male Siblings</u>				
Mother	2	2	2	2
Father	3	3	3	4
Siblings	4	1	4	3
Friend	1	4	1	1
<u>Female Siblings</u>				
Mother	3	3	2	3
Father	4	2	3	4
Sibling	2	1	4	2
Friend	1	4	1	1

Note: SP = Social provisions
 C = Conflict
 ID = Incoming dominance
 OD = Outgoing dominance

social provisions scores (see Tables 27 and 28). Mother ranking second on social provisions was consistent across male and female subjects, as well as subjects with male siblings. However, mothers' social provisions ranking dropped to third for subjects with female siblings. The mean conflict score for mothers followed the anticipated trend, being second lowest to the conflict mean score toward best friends, thus confirming that mothers were characterized by low conflict scores. This result was technically consistent in rankings across the total sample, male subjects, and subjects with male siblings. However, although mothers ranked second highest on conflict for female subjects and subjects with female siblings, the mean conflict scores for mothers and fathers varied so little for the total sample, female subjects, subjects with male siblings and subjects with female siblings as to be virtually identical, contributing more evidence in support of the hypothesis. Conversely, it was expected that mothers would receive low dominance scores. This was not the case as the mean score for incoming dominance targeting mothers ranked the highest across target persons for the entire sample as well as for all gender subgroups. Outgoing dominance targeting mothers ranked second highest across the total sample, male subjects, and subjects with male siblings. For the remaining groups (i.e., female

subjects, and subjects with female siblings) mothers ranked third in outgoing dominance.

Hypothesis 2b: Fathers will be characterized by high social provisions, moderate dominance, and low conflict.

Interestingly, fathers received the lowest social provisions mean score relative to all other target persons across the total sample--males, females, and subjects with female siblings. The mean score for conflict targeting fathers was virtually identical to the conflict mean score targeting mothers for all subjects--female subjects, subjects with male siblings, and subjects with female siblings. Fathers were rated second highest in conflict for male subjects. Mean dominance scores targeting fathers showed fathers as ranking next to lowest in incoming dominance and lowest in outgoing dominance across the entire sample and all gender subgroups as well.

Hypothesis 2c: Same-sex best friends will be characterized as high in social provisions and low in conflict and dominance.

Again, the social provisions portion of the hypothesis (2c) was confirmed. Friends received the highest mean score for social provisions across the four target persons for the entire sample and the gender

subgroups. In addition, friends received the lowest mean score for conflict across the target persons over the total sample and gender subgroups which also confirms Hypothesis 2c. However, the hypothesis was not supported in regard to dominance. Friends received the second highest incoming dominance mean scores for all groups; furthermore, these means were virtually the same as incoming dominance means targeting mother across the entire sample, female subjects and both sibling gender groups. The incoming dominance scale means targeting fathers and best friends were virtually the same for male subjects. Friends received the highest outgoing dominance mean scores for all groups.

Hypothesis 2d: Siblings will be characterized as receiving moderately high social provisions and moderate levels of conflict and dominance.

Relative to the other social provisions mean scores, siblings received the second lowest mean social provision score for the total sample, for male subjects (mean was virtually identical to that for fathers) and female subjects. Interestingly, siblings ranked lowest in social provisions for subjects with male siblings and second highest for subjects with female siblings. However, siblings received the highest mean scores for conflict, and the lowest mean scores for incoming dominance across all

groups. On outgoing dominance, siblings ranked second for female subjects, subjects with female siblings, and third for the total sample, male subjects, and subjects with male siblings.

For hypotheses 2a, 2b, 2c, and 2d generally all target persons received high scores for social provisions, low scores for conflict, and high scores for dominance. This can be more clearly seen in Figures 1 through 5 which show plots of the four construct mean scores across the four target persons.

Hypothesis 3: Different components within each category of social provisions, conflict, and dominance will differ between target persons.

To explore this research question, a Principal Components Factor Analysis was computed for each scale for each target person. Only the initial factor for each of the 16 analyses was viewed in comparing factor loadings of the items for each construct across the four target persons. Having different items on a given construct load differently across the four target persons would provide evidence in support of Hypothesis 3.

Table 29 displays a list of the items and accompanying factor loadings in descending order of the factor loadings. In order to determine support for

Table 29

Factor Loadings for Constructs Across Target Persons

<u>Social provisions</u>							
<u>Item</u>	<u>Mother</u>	<u>Item</u>	<u>Father</u>	<u>Item</u>	<u>Sibling</u>	<u>Item</u>	<u>Friend</u>
95	.7720	16	.8412	16	.8213	86	.7602
58	.7633	103	.8084	103	.8099	76	.7361
86	.7550	95	.8058	35	.8082	94	.7088
49	.7453	86	.8015	86	.8046	85	.6788
90	.7351	90	.7874	76	.7882	35	.6577
35	.7254	76	.7869	95	.7780	84	.6574
101	.7249	75	.7860	49	.7750	103	.6527
11	.7175	49	.7735	66	.7544	58	.6396
16	.7171	11	.7590	80	.7421	66	.6372
18	.7145	35	.7534	90	.7381	96	.6339
* 19	.7106	101	.7490	75	.7360	57	.6278
103	.7081	58	.7407	94	.7236	37	.6222
75	.6883	80	.7291	33	.7232	80	.6161
85	.6807	6	.7255	2	.7227	75	.6157
76	.6687	19	.7246	11	.7205	47	.5922
73	.6645	18	.7231	101	.7193	11	.5918
80	.6529	33	.7071	47	.7173	49	.5767
71	.6494	57	.7060	85	.7140	65	.5758
2	.6488	47	.7037	19	.7070	16	.5423
66	.6483	85	.6971	24	.7063	24	.5392
24	.6444	24	.6944	18	.7039	92	.5357
33	.6275	65	.6929	58	.6978	90	.5325
57	.6125	94	.6923	65	.6876	2	.5294
96	.6052	73	.6918	92	.6727	93	.5289
94	.6035	59	.6895	37	.6667	6	.5244
59	.5926	92	.6873	73	.6596	95	.5244
65	.5763	2	.6832	96	.6434	18	.5240
84	.5498	37	.6793	57	.6384	59	.5218
47	.5449	66	.6555	59	.6202	101	.5109
6	.5295	71	.6554	84	.6157	73	.5025
37	.5149	96	.6545	6	.6076	33	.5020
92	.5132	1	.6219	93	.5709	19	.4850
79	.4826	84	.6164	79	.5535	71	.3807
93	.4242	79	.5638	71	.5386	79	.3176
1	.4094	93	.5491	1	.5385	1	.2894

*Denotes top 30 percent of the factor loadings

(table continues)

Table 29

Factor Loadings for Constructs Across Target Persons

<u>Conflict</u>							
<u>Item</u>	<u>Mother</u>	<u>Item</u>	<u>Father</u>	<u>Item</u>	<u>Sibling</u>	<u>Item</u>	<u>Friend</u>
9	.7793	89	.8117	46	.7852	29	.7004
89	.7743	88	.7872	29	.7611	88	.6956
54	.7475	46	.7751	44	.7537	81	.6945
44	.7442	44	.7654	54	.7477	83	.6916
46	.7422	83	.7563	25	.7372	54	.6729
14	.7294	87	.7483	14	.7337	46	.6551
29	.7220	64	.7336	42	.7271	42	.6505
88	.7167	63	.7115	69	.7262	44	.6495
81	.7101	9	.7068	89	.7199	89	.6446
83	.7087	91	.7050	88	.6963	63	.6361
* 25	.7031	54	.6925	64	.6919	9	.6355
41	.6992	105	.6700	10	.6894	45	.6265
42	.6956	45	.6683	83	.6853	41	.6193
38	.6909	29	.6667	87	.6774	26	.6143
10	.6753	5	.6646	63	.6754	38	.6060
13	.6717	14	.6645	105	.6736	70	.5961
12	.6632	81	.6592	91	.6735	10	.5915
5	.6624	31	.6565	81	.6709	69	.5903
87	.6609	25	.6498	9	.6669	87	.5746
7	.6580	38	.6469	31	.6633	43	.5675
31	.6475	13	.6371	45	.6535	25	.5597
91	.6456	42	.6365	13	.6507	12	.5565
63	.6353	68	.6189	41	.6455	14	.5543
64	.6348	12	.5904	68	.6401	31	.5456
26	.6087	26	.5697	38	.6342	64	.5451
105	.5950	43	.5571	12	.6319	91	.5449
43	.5938	97	.5377	70	.6259	13	.5255
45	.5910	36	.5069	26	.6247	21	.5193
69	.5840	70	.4841	7	.6040	68	.4930
21	.5566	21	.4728	5	.5854	5	.4888
68	.5558	41	.4711	36	.5573	105	.4643
70	.5548	10	.4202	43	.5403	7	.4436
36	.5349	7	.3989	21	.5233	36	.4219
104	.4582	69	.3711	104	.3656	104	.3875
97	.4149	104	.2568	97	.2853	97	.3045

*Denotes top 30 percent of the factor loadings

(table continues)

Table 29

Factor Loadings for Constructs Across Target Persons

<u>Outgoing dominance</u>							
Item	Mother	Item	Father	Item	Sibling	Item	Friend
78	.7877	78	.7966	78	.7927	67	.7370
40	.7073	22	.7678	40	.7695	78	.6971
22	.6982	67	.7650	99	.7139	60	.6571
72	.6754	30	.7351	60	.7072	22	.6291
* 74	.6713	60	.7133	22	.7054	100	.6023
60	.6511	100	.7122	72	.6841	52	.5738
20	.6421	72	.7057	30	.6735	74	.5661
52	.6155	39	.7052	20	.6664	72	.5645
100	.6107	74	.7031	100	.6635	39	.5613
28	.6022	52	.6801	74	.6621	30	.5371
39	.5967	28	.6747	3	.6371	20	.5358
30	.5488	20	.6616	28	.6366	99	.5160
99	.5481	3	.6526	39	.5981	28	.4918
3	.5428	99	.6495	52	.5698	3	.3613
98	.3542	98	.3852	98	.4354	98	.2058
<u>Incoming dominance</u>							
Item	Mother	Item	Father	Item	Sibling	Item	Friend
23	.7945	34	.8153	34	.7799	77	.7107
34	.7462	23	.7556	77	.7727	23	.6896
82	.7267	32	.7425	82	.7601	32	.6806
32	.7116	77	.7399	23	.7589	82	.6669
17	.6829	15	.7359	15	.7298	34	.5957
* 77	.6362	82	.7308	32	.7120	51	.5726
15	.6323	8	.7055	51	.7114	15	.5724
8	.6171	17	.6897	50	.6952	17	.5558
102	.6169	51	.6881	8	.6532	50	.5207
51	.6152	62	.6650	4	.5686	62	.5146
50	.6012	50	.5993	56	.5639	102	.4635
62	.5481	102	.5964	17	.5605	8	.4512
4	.5449	4	.5944	62	.5423	4	.3664
56	.4273	27	.5356	102	.5355	56	.3609
27	.4171	61	.5230	27	.5279	61	.3172
61	.3162	56	.5170	61	.4767	27	.2554
48	.2358	48	.4461	48	.2058	48	.0810
53	.0216	53	.3303	53	.2046	53	.0500
55	-.2235	55	.0284	55	-.0732	55	-.2542

*Denotes top 30 percent of the factor loadings

Hypothesis 3, the top 30% of the items were considered. As can be seen, there is considerable overlap of items in each construct across the four target persons. For the social provisions construct, there were two items in the top third that were unique to mother (items 18 and 19, "discussing private matters with you" and "understanding you"). All the items in the top third for fathers overlapped with other target persons. Siblings had one unique item (80-"phoning or getting in touch with you"). Best friends had six unique items in the top third of the loadings. These were items 57 ("show this person how much you care"), 84 ("understand what this person is going through"), 85 ("help this person"), 94 ("miss this person"), 96 ("have this person near you"), and 103 ("close and intimate is your relationship").

There were very few items which did not overlap for the conflict scale. All items in the top third for mother as well as best friend could be found elsewhere in the top third of the items for other target persons. Only items 87 ("treat you like you don't know anything"), and 91 ("you get upset with this person") were unique to fathers. Item 69 ("you scold this person") was unique to siblings.

Each target person had at least one unique item on the outgoing dominance scale. Mothers had items 72 ("cooperate with this person when they ask") and 74 ("live

up to this person's expectations") unique to the other target persons in the top third items. Fathers also had two unique items; they were items 30 ("you listen to this person's side of the argument") and 60 ("do something this person asks you to do"). Item 99 ("you will be influenced by this person in the years to come") was unique to siblings. Best friends received item 100 ("you count on this person when you need something") uniquely in the top third of the items. There were only two unique items across all target persons on the incoming dominance scale. These were item 17 ("this person accepts the choices you've made") targeting mothers and item 51 ("this person does something you ask them to do") targeting best friends.

In summary, there did not appear to be strong support for Hypothesis 3. Instead there seemed to be a great deal of overlapping in the social provisions, conflict, and dominance across all persons in the subjects' social network of interest in the present study.

CHAPTER V
SUMMARY AND CONCLUSIONS

The present study investigated adolescents' perceptions of their close relationships with mother, father, emotionally closest sibling, and same-sex best friend over three constructs--social provisions, conflict, and dominance. The three domains were measured by self-report using an instrument consisting of items adapted from existing instruments plus the addition of new items in an attempt to represent adequately, and therefore measure, interdependence and social provisions. Interdependence is the hallmark of close relationships (Kelley et al., 1983), while the provision of social resources is an essential component (Weiss, 1974). Results of the present study were mixed as some hypotheses were supported while others were not. Many inconsistencies were found between the results of the present study and results reported in previous literature.

Summary of Current Results

Hypothesis 1 was supported, as social provisions, conflict, and dominance were all found to exist at the .0001 significance level within the subjects' close

relationships with their mothers, fathers, siblings, and best friends. It should be noted, however, that the measurement of these domains was done with an instrument in which many items were taken from existing valid and reliable tests, while other items were created to provide complete representation of the domains. Such alterations may affect the validity and reliability of an instrument. However, the internal consistency of each of the domains was strong. In addition, the results of the psychometric assessments from the pilot study and the main study were similar further indicating consistency.

Hypothesis 2 was also supported. Differences were found between scale scores at the .0001 significance level evidenced by high social provisions scores, low conflict scores, and high incoming dominance and outgoing dominance scores across categories of target persons. In addition, there were differences in scales at the .0001 significance level across target persons. Overall differences due to subject gender as well as gender of sibling were discovered. Not surprisingly, there were a number of significant interactions involving subject gender and gender of sibling. For subject gender, there was a significant two-way interaction with scale scores and a significant three-way interaction with scale scores across target persons. This was evident by the fact that scale

scores were higher for females, and that females assigned higher scores for mothers (on social provisions, incoming, and outgoing dominance), and siblings (social provisions, incoming, and outgoing dominance). Sibling gender was significant in a two-way interaction with target person, in addition to a three-way interaction with scale scores across target persons. Evidence for these interactions can be found on social provisions and outgoing dominance where subjects with female siblings assigned higher scores to mother and sibling. For conflict, subjects with female siblings assigned mother, father, and best friend significantly higher scores.

Significant differences due to subject's gender were found for social provisions targeting mother, sibling, and best friend with female subjects assigning higher satisfaction/frequency to these targets. Further, social provisions scores were significantly different due to sibling gender, again wherein subjects with closest female siblings received the higher satisfaction/frequency. Significant differences in conflict scores were evident for mother, father, and best friend and were exclusively due to sibling gender. Again, those with female siblings assigned higher scores to these target persons. Contrary to conflict, significant differences in incoming dominance were due exclusively to subject gender. Scores assigned to

mother, father, and friend were significantly higher for female subjects. Finally, significant outgoing dominance scores were mixed. Differences in scores assigned to siblings were due to gender and sibling gender as well, once again with female subjects and subjects with female siblings assigning higher satisfaction/frequency scores. Differences in outgoing dominance targeting friends was due to subject's gender only as female subjects assigned friends higher scores than did male subjects. Results due to sibling gender are difficult to explain; it seemed that the common denominator was the presence of females. Perhaps having a sister affects the subjects' interactions with others, particularly in the area of conflict. However, this effect was not consistent across the scales or the categories of target persons.

The directions of the differences in means that did not reach statistical significance were mixed. In some cases female subjects assigned higher scores to target persons (i.e., social provisions and incoming dominance toward father, and outgoing dominance toward mother and father), while in other instances, male subjects assigned higher scores (i.e., toward father, sibling, and best friend for incoming dominance). Subjects with female siblings assigned higher scores on conflict toward sibling, incoming dominance toward sibling and friend, and outgoing

dominance toward mother. Subjects with male siblings assigned higher scores to mother and father on incoming dominance, and father on outgoing dominance.

As far as social provisions and conflict across target persons were concerned, the trends appeared to be as expected (i.e., high social provisions across target persons, low conflict across target persons). However, the two dominance scales were completely different from what was expected. One explanation for this could be that the validity of the scale was questionable. Essentially the scale was developed with the general definition of dominance in mind which was "asymmetrical influence over a broad range of activities" (Huston, 1983, p. 170). In the attempt to measure this phenomenon by self-report, the construct was divided into incoming dominance and outgoing dominance. Without evidence of construct validity, there is no way to assess whether this domain is actually being measured, however, internal consistency was found to be high. Interestingly, the two dominance scales correlated highly with social provisions. While the correlations were not high enough to assume redundancy, they were high enough to be somewhat suspect. Perhaps since the results of the dominance scale in the present study did not match previous literature, other authors were measuring different constructs, or they may have operationally defined

dominance in a different way. In this study, the attempt was to measure dominance as a global measure when perhaps dominance is relative to different aspects of the relationship wherein in some areas, one person is more dominant and in other areas, the other person is more dominant. From Figures 1 through 5 it was interesting to note that subjects perceived themselves as being more dominated by mother and father (incoming dominance) than dominating mother and father (outgoing dominance). In addition, they saw themselves as exerting as much dominance over their siblings as their siblings did over them, while they regarded best friends as dominating them slightly more than they dominated their friends.

Information obtained in the present study was insufficient for accepting the final hypothesis concerning the uniqueness of relationships with each target person. While the order of the top 30% of the items in each construct differed somewhat, most of the items overlapped across categories of target persons suggesting that there was little difference between the types of social provisions, conflict, and dominance provided by each of the close relationships targeted in this study. This finding was contradictory both to Weiss' (1974) theory of social provisions and Bank and Kahn's (1975) proposition that there are certain functions siblings serve for each other

that are exclusive of other relationships. However, it does support the notion of developmental validity where behaviors show consistency across different settings and contexts (Bronfenbrenner, 1979). Perhaps to test the propositions of Weiss (1974), and Bank and Kahn (1975) a more discriminating instrument is needed. Like the dominance scale, perhaps a more global measurement is not best. It is also possible that an individualistic approach rather than a broad general approach to provisions of resources would be more appropriate.

Present Findings and Existing Literature

Many of the family and individual characteristics suggested in existing literature as affecting the relationship between siblings were not found to have any influence on the sibling or any other target relationship of interest in the present study. Contrary to previous research and propositions of sibling relationships (Bossard & Boll, 1966; Schvaneveldt & Ihinger, 1979), ordinal position of the subject, sibling status relative to the closest sibling, closeness in age of the subject, and closest sibling had no effect on any of the construct scores. Interestingly, similar to Cicirelli's (1980) study, while most subjects chose the sibling nearest in age to them as their "emotionally closest" sibling, no

differences were noted between subjects choosing the sibling nearest in age and those choosing other siblings. Contrary to the framework of close relationships (Kelley et al., 1983), the frequency with which subjects saw siblings or any other target person had no effect on the construct scores. In addition, race and place of residence had no bearing on the construct scores. The two variables from previous research which also proved influential in the present study were gender of the subject and gender of the closest sibling, though not in combination. This was contrary to Dunn and Kendrick's (1979, 1981) findings. In fact, both gender of subject and gender of the closest sibling were responsible for differences in social provisions as well as outgoing dominance for sibling. Siblings were the only target persons for which both subject gender and sibling gender were responsible for differences in scale scores. Other differences for other target persons were due to either one or the other variable, but not both.

There were many methodological differences between much of the earlier research and the present study. First, rarely have college-age adolescents been studied concerning their sibling relationships. Where adolescents have been studied many of the findings were replicated. For example, Ross and Milgram (1982) as well as Daniels et

al. (1985) found adolescents reporting feelings of attachment toward parents and siblings alike. Bowerman and Dobash (1974) also found adolescents reporting closeness with siblings. Social provisions scores in the present study were high targeting both parents as well as siblings, lending support to these authors' findings. Identical to Cicirelli's (1980) findings, subjects in the present study were equally likely to choose a male or female sibling as the one to whom they felt closest. That siblings received the highest conflict scores lends support to Baskett and Johnson's (1982) conclusion that siblings tend to respond more negatively to each other than to parents. Developmentally this occurrence may be present over the life span.

From a theoretical point of view, the findings from the present study offered evidence for some of the theory-building propositions proposed in earlier research. Several of the assumptions concerning sibling interaction written by Schvaneveldt and Ihinger (1979) were supported by the present study. In particular, the similarity of sibling groups with other small groups as having communication networks, sharing power and affective relations, containing norms, roles, and functions and generating cooperation and conflict are aspects that were confirmed in the present study. The dominance scales may

also be seen as providing evidence for Schvaneveldt and Ihinger's (1979) proposition that siblings are the instigators and recipients of interaction.

As to the results of the present study alone and in conjunction with other research, a cautionary note must be considered. The present study did not employ the use of a true random selection process to obtain subjects. The sample consisted of groups of convenience samples of students in classrooms. However, an attempt was made to choose several different classes from several different courses, so there is no reason to believe that the subjects solicited were significantly different from other students at the site of the study. The characteristics of the University as well as the student body at the University should be kept in mind as results are generalized.

Suggestions for Future Research

While the present study was a first attempt at comparing the profiles of four different close relationships, more research needs to be done in this area, optimally on a large-scale, multimethod-multimeasure design. Specifically, more information needs to be obtained on the psychometric properties of the instrument, particularly for the measurement of dominance. The attempt for this study was to measure global

dominance, and perhaps it would be more reasonable in future research to develop an instrument which would measure dominance relative to particular aspects of relationships.

For further consideration of Weiss' (1974) theory, and Bank and Kahn's (1975) propositions as well, perhaps a more fine-tuned version of the instrument should be developed which would better discriminate the differences between various aspects germane to different target relationships. Another consideration would be to ascertain whether Weiss' (1974) theory can be the basis of explaining individual interpersonal relationships or cultural trends.

Of vital importance is longitudinal research on relationships, particularly with siblings, using the Kelley et al., (1985) framework across the life span and across various family types as well. Ideally, a design which includes longitudinal and cross sectional data simultaneously could be employed. As Schvaneveldt and Ihinger (1979) suggested, the sibling relationship is in continual flux. Very little is known about the nature of that flux. Although results of this and previous research suggest that there are variations and consistencies in sibling relationships over time, the notion of Bryant and Crockenberg (1980), that interactive behavior is predictive over time, should be tested. Current research in

conjunction with the present study allows only for hypothetical extrapolation of the nature and change in the sibling relationship over time.

In addition to studying the sibling relationship across the lifespan, employing a multimethod-multimeasure scheme of data collection would be best. In this scheme, several measurements could be administered to other members of the social network in addition to the person of main interest. This would give the researcher the opportunity to cross-validate information across all persons in the social network. For example, in addition to assessing the subject's perceptions of the sibling relationship, the siblings, parents, and friends would supply their perceptions of the subject's relationships with all members of that social network. Measurements of various constructs related and unrelated to the constructs of interest could be administered to validate the measurements of interest further. Of course, ideally, this study would be conducted on a nation-wide random sampling of subjects where the administration procedures would be consistent across all administrations.

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APPENDIX A
PILOT STUDY VERSION OF THE QUESTIONNAIRE

Please answer the following questions about yourself.

1. For the following items, please write in your answer or circle the number for the correct response.

Age	Sex	Living Arrangement	Year in School	Marital Status	Race
_____	1 Male	1 Home	1 Freshman	1 Single	1 Black
	2 Female	2 Dorm	2 Sophomore	2 Divorced	2 Oriental
		3 Other	3 Junior	3 Married	3 White
			4 Senior		4 Other _____

2. Which best describes your family:

1 Intact family, both biological parents together
 2 Step family, one biological parent and one stepparent
 3 Single parent family, living with one biological parent
 4 Other family type, (please describe) _____

3. Among your (step)brothers and (step)sisters are you the:

1 Oldest
 2 Middle, neither the oldest nor the youngest
 3 Youngest
 4 Neither, I am an only child

***NOTE: IF YOU ARE AN ONLY CHILD, PLEASE COMPLETE THE PORTIONS OF THE QUESTIONNAIRE THAT APPLY TO YOU!!**

4. How many brothers do you have? _____ How many sisters? _____
5. How many stepbrothers do you have? _____ How many stepsisters? _____
6. Which of the following people did you grow up with?

1 Mother	5 Sister(s)	9 Grandmother or Stepgrandmother
2 Father	6 Brother(s)	10 Grandfather or Stepgrandfather
3 Stepmother	7 Stepsister(s)	11 Aunt or Stepaunt
4 Stepfather	8 Stepbrother(s)	12 Uncle or Stepuncle

7. Please answer the following questions about the sibling (brother or sister) or stepsibling (stepbrother or stepsister) you feel closest to.

What is their age?	What is their sex?	Are they	Nearest in age to you?	Did you grow up with them?
_____	1 Male	1 Natural	1 Yes	1 Yes
	2 Female	2 Step	2 No	2 No
		3 Half		

8. Please answer the following questions about your best friend who is the same sex as you.

What is their age?	What is their sex?	How long have you known them?
_____	1 Male	_____ Years
	2 Female	

	1=VERY OFTEN 2=OFTEN 3=SOMETIMES 4=RARELY 5=NEVER			
	MOTHER	FATHER	SIBLING	BEST FRIEND
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	1=VERY OFTEN 2=OFTEN 3=SOMETIMES 4=RARELY 5=NEVER			
	MOTHER	FATHER	SIBLING	BEST FRIEND
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1=VERY OFTEN
 2=OFTEN
 3=SOMETIMES
 4=RARELY
 5=NEVER

MOTHER FATHER SIBLING BEST FRIEND

	MOTHER	FATHER	SIBLING	BEST FRIEND
86 How often does this person disregard your feelings?				
87 How often does this person get upset with or mad at you?				
88 How often do you do nice things for this person for no reason at all?				
89 How often does this person talk to you when they feel sad/depressed?				
90 How often do you follow this person's advice/requests?				
91 How often do you think this person will get angry with you in the years to come?				
92 How often do you scold this person?				
93 How often does this person get you into trouble?				
94 How often does this person like or approve of the things you do?				
95 When you and this person disagree, how often does this person win?				
96 How often do you cooperate with this person when they ask for help?				
97 How often do you tell this person's secrets to others?				
98 How often do you and this person like the same things?				
99 How often do you live up to this person's expectations of you?				
100 How often do you show affection to this person?				
101 How often does this person sense when you are upset about something?				
102 How often do you pay attention to this person?				
103 How often does this person listen to what you have to say?				
104 How often does this person tell you a secret after you have told them one?				
105 How often does this person phone or get in touch with you?				
106 How often do you do things just to annoy this person?				
107 How often does this person expect you to help them?				
108 How often do you listen to what this person has to say?				
109 How often does this person treat you like you can't do anything right?				
110 When there is a decision to be made, how often do you make it?				
111 How often does this person demand to have their way?				
112 How often do you understand what this person is going through these days?				
113 How often do you help this person?				
114 How often does this person help you?				
115 How often does this person treat you like you don't know anything?				

1=EXTREMELY
 2=VERY
 3=SOEVRAT
 4=LITTLE
 5=NOT AT ALL

	MOTHER	FATHER	SIBLING	BEST FRIEND
135 How much do you care about this person?				
136 How much has this person influenced you in choosing a career?				
137 How much do you think you will be influenced by this person in the years to come?				
138 How much can you count on this person when you need something?				
139 How happy are you with the way things are between you and this person?				
140 How much do you think this person will be influenced by you in the years to come?				
141 How close and intimate is your relationship with this person?				
142 How angry does this person feel when you do something wrong?				
143 How easily does this person get upset with you?				
144 How jealous does this person feel when you do something good?				

- 135 How much do you care about this person?
- 136 How much has this person influenced you in choosing a career?
- 137 How much do you think you will be influenced by this person in the years to come?
- 138 How much can you count on this person when you need something?
- 139 How happy are you with the way things are between you and this person?
- 140 How much do you think this person will be influenced by you in the years to come?
- 141 How close and intimate is your relationship with this person?
- 142 How angry does this person feel when you do something wrong?
- 143 How easily does this person get upset with you?
- 144 How jealous does this person feel when you do something good?

APPENDIX B
LIST OF QUESTIONNAIRE ITEMS BY CONSTRUCT

SOCIAL PROVISIONS

All the positive, warm, proximity seeking aspects of relationships (Weiss, 1974).

How often do you do enjoyable things with this person?

How often does this person talk over important decisions with you?

How often do you talk over important decisions with this person?

How often does this person understand what you are going through these days?

How often do you understand what this person is going through these days?

How often do you and this person like the same things?

How often do you spend free time with this person?

How often do you admire and respect this person?

How often does this person admire and respect you?

How often do you feel this person accepts you as you are?

How often does this person sense when you are upset about something?

How often do you phone or get in touch with this person?

How often does this person phone or get in touch with you?

How often do you and this person tell jokes to each other?

How often do you show affection to this person?

How often does this show affection to you?

How often do you talk to this person when you feel sad/depressed?

sad/depressed?

How often do you talk to this person about your private matters?

How often does this person talk to you about their private matters?

How often do you do nice things for this person for no reason at all?

How often does this person do nice things for you for no reason at all?

How often do you do something nice for this person after they have done something nice for you?

How often does this person do something nice for you after you have done something nice for them?

How often do you tell this person a secret after they have told you one?

How often does this person tell you a secret after you have told them one?

How often do you compliment this person after they compliment you?

How often does this person compliment you after you have complimented them?

How often do you show this person how much you care about them after they have shown you how much they care about you?

How often does this person show you how much they care about you after you have shown them how much you care about them?

How much do you care about this person?

How much does this person care about you?

How happy are you with the way things are between you and this person?

How much do you miss this person when you haven't seen them for a while?

How happy do you feel when this person accomplishes something important?

How much does this person like or love you?

How much do you like or love this person?

How close and intimate is your relationship with this person?

How much do you trust this person?

How much does this person trust you?

How relaxed and easy going is your relationship with this person?

How much would you like to have this person near you always?

How well do you and this person communicate with each other?

How often does this person like or approve of the things you do?

How often do you like and approve of the things this person does?

How often does this person help you?

How often do you help this person?

How often does this person help you to understand yourself better?

How strongly do you believe that you and this person will stick together through thick and thin?

How much do you think you will like or love this person in the years to come?

CONFLICT

Occurs when the actions of one person interfere with the actions of another (Peterson, 1983).

How often does this person insult and/or call you names?

How often do you insult and/or call this person names?

How often do you get upset with or mad at this person?

How often does this person get upset with or mad at you?

How often does this person disappoint you?

How often do you feel like hitting this person?

How often do you do things just to annoy this person?

How often does this person do things just to annoy you?

How often does this person treat you like you don't know anything?

How often does this person treat you like you can't do anything right?

How often does this person complain about you?

How often do you complain about this person?

How often do you get revenge on this person?

How often does this person get revenge on you?

How often do you start fights with this person?

How often does this person start fights with you?

How often does this person disregard your feelings?

How often do you disregard this person's feelings?

How often does this person give you a hard time?

How often does this person embarrass you in front of others?

How often does this person leave you out of fun things?

- How often do you tell this person's secrets to others?
- How unpredictable is your relationship with this person?
- How tense and stressful is your relationship with this person?
- How easily do you get upset with this person?
- How easily does this person get upset with you?
- How jealous do you feel when this person does something good?
- How jealous does this person feel when you do something good?
- How angry do you feel when this person does something wrong?
- How angry does this person feel when you do something wrong?
- How often do you wish this person would go away?
- How often do you feel like you would be happier if this person were not in your life?
- How often is this person mean to you?
- How often are you mean to this person?
- How often does this person scold you?
- How often do you scold this person?
- How often does it seem that this person is irritated with you for no reason?
- How often do you get irritated with this person for no reason?
- How often do you feel fed up with this person?
- How often does this person get you into trouble?
- How often does this person interrupt what you are doing?
- How often do you interrupt what this person is doing?

How often does this person interfere with your plans?

How often do you interfere with this person's plans?

How often does this person take out their frustrations on you?

How often do you take out your frustrations on this person?

How often do you think you will get angry with this person in the years to come?

How often do you think this person will get angry with you in the years to come?

DOMINANT INFLUENCE

"asymmetrical influence over a broad range of activities"

How often do you tell this person what to do?

How often does this person tell you what to do?

When you are with this person, how often do you tend to take charge?

When you are with this person, how often does this person tend to take charge?

How often does this person boss you around?

How often do you boss this person around?

How much do you have a say in the rules of your relationship with this person?

How often do you demand to have your way?

How often does this person demand to have their way?

When you and this person disagree, how often do you win?

When you and this person disagree, how often does this person win?

When there is a decision to be made, how often do you make it?

When there is a decision to be made, how often does this person make it?

How often does this person accept the choices you've made?

How well do you accept the choices this person has made?

How often do you follow this person's advice/requests?

How often does this person follow your advice/requests?

How often does this person agree with you?

How often do you agree with this person?

How often do you defend this person?

How often does this person defend you?

How often do you cooperate with this person?

How often does this person cooperate with you?

How often does this person pay attention to you?

How often do you pay attention to this person?

How often does this person listen to what you have to say?

How often do you listen to what this person has to say?

How often does this person encourage you to talk about your difficulties?

How often do you talk to this person about their difficulties?

How often does this person listen to your side of the argument?

How often do you listen to this person's side of the argument?

How often do you live up to this person's expectations of you?

How often does this person live up to your expectations of them?

How often do you do something this person asks you to do?

How often does this person do something you ask them to do?

How often do you cooperate with this person when they ask for help?

How often does this person cooperate with you when you ask for help?

How much can you count on this person when you need something?

How much has this person influenced you in choosing a career?

How often do you teach this person things they don't know?

How often does this person teach you things you don't know?

How often does this person expect you to help them?

How often do you expect this person to help you?

How often do you follow the advice of this person?

How often does this person follow your advice?

How often does this person make you feel unhappy?

How often do you do things to make this person feel unhappy?

How often does talking over your problems with this person make you feel worse?

How much do you think you will be influenced by this person in the years to come?

How much do you think this person will be influenced by you in the years to come?

APPENDIX C
MAIN STUDY VERSION OF THE QUESTIONNAIRE

THE UNIVERSITY OF NORTH CAROLINA
AT GREENSBORO

SCHOOL OF HUMAN ENVIRONMENTAL SCIENCES

Department of Child Development—Family Relations
(919) 334-5307



April 26, 1988

Dear Participant,

As a doctoral candidate in the Department of Child Development and Family Relations, I have designed this questionnaire to learn more about the different activities that occur in various close relationships in peoples' lives, particularly with family members. It would be very helpful to me if you would complete the attached questionnaire. It will take about 30 minutes.

If you flip to the back page of the questionnaire, you will find a box asking you for your name, phone number, and address. If you choose to participate in my study by completing this questionnaire, your name will be entered in a drawing for one of four prizes. The prizes include four cash awards of \$25.00 each. Your name, address, and phone number will be used for that purpose ONLY, and that information will be removed before your answers on the questionnaire are viewed. As principal researcher in this study, I will be the only one to see your name, address and phone number. After the drawing, and the winners are contacted, all names, addresses and phone numbers will be destroyed.

You will be given the questionnaire during a class period. Please take it home, complete it, and return the questionnaire in one of the two following ways:

1. return it during your next class period (including exam time), and place it in the box provided;
2. place it back in the envelope and drop it in a campus mail drop. . . they are located in each dorm, the information desk in Elliot Center, and any departmental office.

If you decline to respond to particular questions, or choose not to participate in this study, you will not be contacted nor be affected IN ANY WAY. . . this includes class standing. However, only those who participate in the study will be included in the drawing for the prize money.

If you would like a brief copy of the results of the study, you may indicate so at the end of the questionnaire. Or if you prefer, please call me at 334-5930 (8:30 a.m.-5:00 p.m.) Also, please call me if you have any questions about the study or the questionnaire.

Your assistance is greatly appreciated!

Sincerely,
Paula Cox
Paula Cox,
Principal Researcher
334-5930

GREENSBORO, NORTH CAROLINA / 27412-5001

THE UNIVERSITY OF NORTH CAROLINA is composed of the sixteen public senior institutions in North Carolina
an equal opportunity employer

Please answer the following questions about yourself.

For the following items, please write in your answer or circle the number for the correct response.

Age	Sex	Living Arrangement	Year in School	Marital Status	Race
_____	1 Male	1 Parents	1 Freshman	1 Never married	1 Black
	2 Female	2 Dorm	2 Sophomore	2 Divorced/sep.	2 Oriental
		3 Apt./house	3 Junior	3 Married	3 White
			4 Senior		4 Other _____

Which best describes the family you grew up in?

- 1 Intact family, both biological parents together
- 2 Step family, one biological parent and one stepparent
- 3 Single parent family, living with one biological parent
- 4 Adoptive family
- 5 Other family type, (please describe) _____

Among your (step/half)brothers and (step/half)sisters are you the:

- 1 Oldest
- 2 Middle, neither the oldest nor the youngest
- 3 Youngest
- 4 Neither, I am an only child

*NOTE: IF YOU ARE AN ONLY CHILD, PLEASE COMPLETE THE PORTIONS OF THE QUESTIONNAIRE THAT APPLY TO YOU!!

How many of the following do you have in your family?

Older brothers _____ Younger brothers _____ Step or half brothers _____

Older sisters _____ Younger sisters _____ Step of half sisters _____

Which of the following people do you feel close to emotionally at the present time.

	How long (in years) have you known them?	How often do you see them?
1 Mother	_____	_____
2 Father	_____	_____
3 Stepmother	_____	_____
4 Stepfather	_____	_____

Please answer the following questions about the sibling (brother or sister) or half/siblings (half/stepbrother or half/sister) you feel closest to emotionally at the present time.

What is their age?	What is their sex?	Relation to you	Nearest in age to you?	How often do you see them?
_____	1 Male 2 Female	1 Natural 2 Step 3 Adopted 4 Half	1 Yes 2 No	1 daily 2 twice or more weekly 3 twice or more monthly 4 several times per year 5 rarely/never

Please answer the following questions about your best friend who is the same sex as you—the friend you feel closest to emotionally at the present time.

What is their age?	What is their sex?	How long have you known them?	How often do you see them?
_____	1 Male 2 Female	_____ Years	1 daily 2 twice or more weekly 3 twice or more monthly 4 several times per year 5 rarely/never

When you are with this person, how often.

- 81. do you do things just to annoy this person?
- 82. do you listen to what this person has to say?
- 83. does this person treat you like you can't do anything right?
- 84. do you understand what this person is going through these days?
- 85. do you help this person?
- 86. does this person help you?
- 87. does this person treat you like you don't know anything?
- 88. does it seem that this person is irritated with you for no reason?
- 89. do you feel fed up with this person?

	MOTHER	FATHER	SIBLING	BEST FRIEND
1=VERY OFTEN				
2=OFTEN				
3=SOMETIMES				
4=RARELY				
5=NEVER				

Indicate how strongly you feel about the following activities for each person by writing the appropriate number in the blank.

- 90. How relaxed and easy going is your relationship with this person?
- 91. How easily do you get upset with this person?
- 92. How much does this person trust you?
- 93. How much does this person care about you?
- 94. How much do you miss this person when you haven't seen them for a while?
- 95. How well do you and this person communicate with each other?
- 96. How much would you like to have this person near you always?
- 97. How unpredictable is your relationship with this person?
- 98. How much has this person influenced you in choosing a career?
- 99. How much do you think you will be influenced by this person in the years to come?
- 100. How much can you count on this person when you need something?
- 101. How happy are you with the way things are between you and this person?
- 102. How much do you think this person will be influenced by you in the years to come?
- 103. How close and intimate is your relationship with this person?
- 104. How angry does this person feel when you do something wrong?
- 105. How easily does this person get upset with you?

	MOTHER	FATHER	SIBLING	BEST FRIEND
1=EXTREMELY				
2=CONSIDERABLY				
3=SOMEWHAT				
4=LITTLE				
5=NOT AT ALL				

Thank you for completing the questionnaire. Your cooperation is greatly appreciated. If you are interested in your name being included in the drawing for one of the four \$25.00 prizes, please complete the following form.

NOTE Your name will not be used for anything else. It will not be paired with your answers on the preceding questionnaire.

NAME: _____
ADDRESS: _____
_____ zip
PHONE: (____) - _____

If you are interested in receiving a brief summary of the results of this study, please state so in the space below; the results will be mailed to the address listed above.