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  <u>Relationship.</u>

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Siblings influence each other lifelong and are challenged to accomplish specific developmental tasks of the sibling relationship (Goetting, 1986). Rivalry and closeness are the fundamental themes in this relationship. In adolescence two siblings might give each other emotional support, be confidants, feel close; they might also struggle, fight, and feel rivalrous. Recent research suggests that siblings have slightly different perceptions about their relationship (Daniels et al., 1985). Taking the viewpoints of each sibling together provided the possibility of examining how sibling agreement influenced individual feelings about the relationship.

In this study, 78 pairs of undergraduate college students and their nearest-in-age siblings completed questionnaires. Scales about feelings of closeness, rivalry, similarity, competition, and frequency of contact between the siblings as well as information about the sibling structure were included.

Under consideration first was whether the sibling structure made

a difference in siblings' feelings of closeness and rivalry. Younger siblings were found to have higher feelings of closeness toward the older sibling than vice versa. Feelings of rivalry were not different between the siblings. Neither age-spacing (less than two years versus more than two years age-space) nor sex-combination (sister-sister; brother-brother; sister-brother) had an impact on sibling rivalry and closeness. The second research question focused on sibling agreement in rivalry and closeness. The sibling pairs were divided into high and low agreement groups. Siblings' individual feelings were compared between these two groups. Strong evidence for older siblings, and a tendency for younger siblings, showed higher feelings of closeness if they were in agreement about rivalry. Younger siblings felt less rivalrous and competitive if the siblings had a shared view about how close their relationship was. If in agreement about closeness, both siblings believed they were more similar to each other than if they did not share their views about closeness.

Age-spacing and sex-combination within dyads did not relate to the feelings of rivalry and closeness. Siblings who were in agreement about their feelings had more positive and less negative feelings toward each other.

The Sibling Dyad:
A Mutual Perspective of Their Relationship

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CHAPTER I

INTRODUCTION

The Sibling Relationship over the Lifecourse: Feelings of Rivalry

and Closeness

The siblingship is unique among close human relationships
because of its long duration and also because participants
share a common genetic and social heritage, a common
cultural milieu, and common early experiences within the
family (Goetting, 1986, p. 703).

Shared patterns of activities bind siblings throughout their life

cycles. In their activities, siblings provide models and advice, they

serve as confidants and sources of nonjudgemental social support in

times of emotional stress (Lamb & Sutton-Smith, 1982).   Sibling

interaction is a continuous developmental process which is not limited

to the early "critical" years but siblings are constantly both

recipients and instigators of socialization.

Feelings of closeness and rivalry impact the sibling relationship

over the whole lifespan (Adams, 1969; Cicirelli, 1977 and 1980b).   In

childhood, closeness between siblings is significantly related to the

age space between them: the closer in age the siblings are, the closer

they feel to each other (Sutton-Smith & Rosenberg, 1970). These

feelings of closeness undergo a developmental process and as a result

may change during life. For example, early on in their lives sisters

might not feel as close as they do in late adolescence or early adulthood when they have common interests. The sisters' role similarity if they both marry could make them closer (Adams, 1969). Closeness sometimes increases in late adulthood or old age. Re-establishing a close relationship in old age is regarded as an important accomplishment by many siblings (Ross, Dalton, & Milgram, 1980). Thus, feelings of closeness change over the lifespan as well as the reasons for those feelings.

The experience of rivalry also has a developmental trajectory. Feelings of rivalry can be always latent, appearing strongly in certain circumstances during life, while disappearing in other times (Cicirelli, 1982). In childhood and adolescence it is the struggle for parental love which makes siblings often feel rivalrous (Bank & Kahn, 1982) whereas in adulthood especially brothers report competitiveness and jealousy in their relationship (Adams, 1969). They use each other as a "measuring stick" to evaluate their professional success or lack of it. In old age, especially if siblings are forced to live together, latent feelings of rivalry can reemerge. So, rivalrous feelings can dominate the sibling relationship beyond the time the siblings live together in their parents' home and are forced to get along with each other. As in the case of closeness, sibling rivalry is a construct with its "own life" in the sibling relationship: the reasons for rivalry are changing and so do the implications for the relationship.

Siblings in Late Adolescence

This study focuses on the sibling relationship in late adolescence. There are few studies investigating the sibling relationship in adolescence taking a quantitative approach (e.g. Bowerman & Dobash, 1974; Kidwell, 1981; Rafaelli & Larson, 1987). Only one research group (Daniels et al., 1985; Daniels, 1986) takes both adolescent siblings' perceptions into consideration when they investigate their relationship.

Late adolescence is a stage in life when finding one's identity in place of identity confusion and establishing independence from parents are major tasks facing most individuals (Erikson, 1968). Questions such as "Who am I?" and "What do I want to do with my life?" emerge. Decisions about occupational goals or whether to leave the parents' home and/or go to college need to be made. Besides the peer group, the family is the major support system enabling the adolescent to accomplish these specific tasks (Jensen, 1985). Beyond the personal identity issues rapidly arising during this time of life, it is commonly believed that family relations in adolescence may be forerunners of family relations in later years. Goetting (1986) suggests that patterns of companionship, emotional support, caretaking, and direct services that are characteristic of sibling relationships in adulthood, might be securely anchored during childhood and adolescence. Mutual companionship and emotional support are already in adolescence the most important developmental tasks of the sibling relationship. At adolescence, for most siblings their

relationship becomes more voluntary than in earlier years. They might or might not share common friends or do leisure time activities together. So, siblings have a much freer choice during adolescence than previously whether they will be with each other and also over the nature of their interactions.

The Sibling Dyad

Cicirelli (1980a) hypothesizes that sibling-ties are strong in adolescence, as brothers and sisters face common problems of growing up. He suggests that college years are a period when sibling relationships will be especially strong, with siblings likely to be supportive of efforts to establish independence from parents and to take on new roles and values. Therefore, opportunities for identification with one other bonded sibling seem to increase in adolescence. Bank and Kahn (1982) even suggest:

> There is no neutrality or indifference in this sibling
> world; a particular sibling is the one who really counts.
> One sibling is always more prominent, eliciting passionate
> feelings of hate or love, rarely are such feelings
> distributed evenly. In the struggle to develop a self-
> concept, one always looks to a sibling close in age and
> compares oneself with his fellow traveler in life's voyage
> (p. 51-52).

Thus, siblings tend to organize themselves into emotionally significant pairs either in a positive or negative sense. The outcome can be a dyadic bond of love or hate, of rivalry or closeness. In the case of closeness, although family cohesion continues to provide the general structure within which sibling closeness occurs, closeness tends to become more an attribute of the adolescent sibling

relationship (Ross, Dalton, & Milgram, 1980). Siblings help each other meet developmental challenges through comparisons, they are models for each other, give advice and they talk through issues and concerns which helps in forming their own identities. "Favorite siblings may become friends, helping each other finding dates, or good-naturedly competing for them" (Ross, Dalton, & Milgram, 1980, p. 6). Adolescence is also a time when parents and children have difficulty communicating about emotional issues such as sexuality and the use of recreational drugs and when friends of both sexes "prove fickle and unpredictable" (Lamb & Sutton-Smith, 1982, p. 13). Then, siblings provide the most consistently supportive relationship. This is the time when brothers and sisters act as "buffers" for each other, interposing themselves between their sibling and the outside world or between their sibling and the parents (Bank & Kahn, 1975). Siblings can be a support not only in the adolescent's struggles with the "outside world" but also inside the family unit.

In sum, the sibling relationship is formed through the siblings' own actions and reactions, identification or lack of identification (Bank & Kahn, 1982). The formation of a dyad is most common among same-sex siblings and among siblings who are close in age (Caplow, 1968). Consequently, age space and sex combination are expected to contribute to the development of feelings of closeness on one hand and feelings of rivalry on the other hand.

Theoretical Perspective

Each individual is a member of several social systems simultaneously. Adolescence is a stage when the number of these social systems increases faster than before or after. The adolescent belongs to the family system, the peer group system, the school system, perhaps a sports club etc. Since all the systems are interdependent, the increasing number of social systems impact each single system this person belongs to.

Buckley (1967) defines a system as a set of different things or parts (e.g. family members) that meet two requirements: first, these parts are directly or indirectly related to one another in a network of reciprocal causal effects and second, each component part is related to one or more of the other parts of a set in a reasonably stable way during any particular period of time. One specific system is the family system. It is defined as a social system in which information exchange is a major concern (Broderick & Smith, 1979). The natural strains connected with adolescence are often perceived as instigators for arising tension inside this system. The adolescent is expected to establish independence from the parents. In doing so, parents commonly receive and give reduced information about feelings. In this situation, the information exchange with a certain sibling may increase. Ross, Dalton and Milgram (1980) suggested: "Although family closeness continues to provide the general structure within which sibling closeness occurs, in adolescence, closeness tends to become

more an attribute of this relationship" (p. 6).

The sibling subsystem seems to gain importance. A subsystem is defined as a system inside a larger system (Broderick & Smith, 1979). This system is characterized by its boundaries around it. A boundary is a place where a system stops operating in geographical space or social environment (Kantor & Lehr, 1975). Siblings may exchange information in a dyad that excludes others. Hence they can be viewed as a separate subsystem inside the family system. For example, Kevin's older sister Mary might be angry that he secretly started smoking. She thinks it's the peer pressure that makes him smoke. When Mary talks to Kevin about it, in the absence of other family members, she might be very critical and clear about her position. However, when the issue is debated in the parents' presence, Mary behaves differently in that she is more empathetic with Kevin. Mary might try to make the parents understand why Kevin started smoking.

Whether information is exchanged between the siblings about their feelings and emotions, and how intensive the exchange is, is a function of the sibling subsystem. This subsystem has its own rules of transforming information. Certain rules are already established and there is a mutual understanding between the siblings about some of those rules. For example, Kevin might complain about his trouble with the parents only if he is sure that Mary will not tell the parents about their conversation. In addition to the existing rules, the siblings develop new rules of transforming information. This is called morphogenesis (Broderick & Smith, 1979). For instance, the siblings in adolescence may discuss very intimate experiences, such as

sexuality. They might develop the rule not to laugh about each other when talking about this "hot" issue but to take each other's concern seriously.

The clearer the siblings' mutual understanding of newly developed rules, the better the system will function. A shared perspective of what appropriate behavior means to them and mutual agreement of what their relationship is like may enhance an optimal functioning of the subsystem. Sibling relationships may be quite complex given the feelings of closeness and rivalry that may simultaneously occur. Perhaps in a sibling dyad, a shared understanding of the nature of their relationship would illuminate how the sibling subsystem functions. For instance, Kevin and Mary can be highly competitive in sports or school achievement, but as long as they agree about their competitiveness, they might be able to support each other fiercely if one of them has a dispute with their parents. Consequently, it could be suggested that the quality of the sibling relationship is related to the siblings' level of agreement about their feelings.

CHAPTER II

REVIEW OF LITERATURE

Since this study is concerned with the sibling relationship in late adolescence, first emphasis in the literature review is put on this particular developmental stage. Then the focus is directed toward family members as socialization agents during adolescence. Sibling closeness and sibling rivalry are perceived as two major phenomena illuminating the siblings' relationship. In two separate sections, important ideas and results of studies dealing with sibling closeness and rivalry are reviewed. Finally, the purpose of this study, the research questions, and the research hypotheses are stated.

Adolescence: A Developmental Stage

Adolescence is a developmental stage commonly described as a transition from childhood to adulthood. Entering the working world is often connected with finishing the stage of adolescence (Dusek, 1987). Adolescence is divided by Blos (1962) into chronological stages: latency, early adolescence, late adolescence, and post adolescence. Each stage has a unique major emphasis. It is in late adolescence that the major focus is the "Who am I?" question. Gradually, self esteem becomes stable and a firm sex-role identity is established. Also, adolescence is often called the second period of socialization.

The young person is exposed to an increasing number of new settings, where the major socialization agents are identified as the parents and the adolescent peer group (Youniss & Smollar, 1985).

Havighurst (1951) has noted nine major tasks for the adolescent person to master. Five out of these nine tasks are still dominant in late adolescence. These tasks are: developing appropriate relations with age mates of both sexes; becoming emotionally independent of parents and other adults; achieving the assurance that one will become economically independent; preparing for marriage and family; acquiring values that are harmonious with an appropriate scientific world view.

The adolescent literature barely mentions the sibling as a supportive family member in solving these developmental tasks (Dusek, 1987). In a recent study Raffaelli and Larson (1987) compared the sibling interaction in late childhood and early adolescence ages to the level of interaction with parents and friends. The scientists were interested in finding out whether the sibling interaction resembles more the adolescent's way of interacting with friends or with parents. Results showed that the latter is the case. The conclusion was that siblings do not seem to be a confidant as important as friends are in early adolescence. However, these results don't imply that in late adolescence when the "Who am I?" question and vague feelings about "What do I want to do with my life?" become predominant, a particular sibling cannot be "the" major confidant. A study parallel to Raffaelli and Larson's study with subjects in late adolescence could reveal developmental changes of the sibling relationship over time.

The Influence of Social Systems in the Search for Identity

Maricia (1966) views identity as a continually changing organization of one's own attitudes, values, beliefs, and the like. Finding one's identity is a life-long task, yet, it is of particular importance in adolescence. The sociologist Friedenberg (1969) has suggested that individual identity develops from the conflict adolescents experience with their parents and other authority figures. Adolescents can clarify the uniqueness of their own experience only by contrasting it with the experience of those who have gone before them. "They can assert the uniqueness of their own individuality and independence only by coming into conflict with those who would keep them submissive" (p. 9).

Erikson's core concept to discuss adolescent development is the acquisition of ego identity, a sense of who and what the person is-the person's evaluation of self. Erikson (1968) believes that both physiological and cultural factors exert important influences on the unfolding of the various stages of development. Hence, the understanding of an individual's identity partly depends on how well the person's interactions with the environment are understood.

Even more strongly than Erikson, who interprets adolescence from a psychosocial perspective, the social learning theorists emphasize the role of the culture and the environment in explaining development. They believe that people form their thoughts, feelings, and actions from observing and initiating what they perceive to be the thoughts, feelings, and actions of others (Dusek, 1987). The emphasis on the

incorporation of culture and environment is in harmony with Bronfenbrenner's ecological definition of development. Bronfenbrenner (1979) proposes that development never takes place in a vacuum; rather it is always embedded in a particular environmental context. He defines human development as:

> ...the process through which the growing person acquires a more extended, differentiated, and valid conception of the ecological environment, and becomes motivated and able to engage in activities that reveal the properties of, sustain, or restructure that environment at levels of similar or greater complexity inform and content (p. 27).

A similar approach is taken by Kurt Lewin (1939). His field theory views the adolescent's development as a task which needs to be addressed in its wholeness. He calls the period of adolescence a "period of transition." In general, Lewin's field theory explains human behavior as a function of the total psychological field or life space. Behavior is seen as a dynamic whole, not only the sum of its parts. Two principles underlying his field-theory are that every concrete aspect of a situation must be included to explain behavior, and in any given field, events are interdependent.

The period of transition is regarded by Lewin as a transition into "unknowns." In adolescence the life space is not clear because the space of free movement is greatly increased. This new life space has to be identified by the adolescent. The boundaries of the newly acquired space of free movement are only vaguely determined. Therefore the life-space of the adolescent is full of possibilities and at the same time of uncertainties. The adolescent who is moving from the limited activity regions of earlier years is now confronted with great "unknowns." For example, the adolescent leaves for the

first time the parents' home, either going to college or taking a job at a different place. The adolescent has to manage a new life situation more independently than ever before and at the same time must get acquainted with many new people. As a consequence, with the increasing number of systems the adolescent is involved in, the relationship to all facets of each system will change.

Lewin compares the adolescent's position with the position of a "marginal man." Adolescents do not want to depend any longer on the parents as children do but at the same time know that they are not readily accepted in the adult group. As a result they are standing in the boundary between two groups, without being clear about their belongingness to either group. Symptoms of emotional instability and sensitivity are the consequences (Manaster, 1977). The following two sections discuss this situation of "being in limbo" by describing the adolescent's relationship to two family members: the parent and the sibling.

The Parent - Adolescent Relationship

Youniss and Smollar (1985) contend that the person's development can be understood as occurring through the development of relationships, since the process of change is social and the person is an individual in relation to other persons. According to many adolescent textbooks, the most important others in the adolescent's life are parents and friends. They are identified as the main socialization agents in the adolescent's life. Despite the fact that many adolescents indeed experience a troublesome time with their

parents, most adolescents are far from being completely rebellious and disturbed in their relationship with their parents (Bandura & Walters, 1959; McKinney et al., 1973). Whether adolescent boys and girls are rebellious or conforming is not an "all-or-none" question; it may be that conformity and rebellion are two sides of the same coin, the coin of establishing identity.

In an eight-year longitudinal study of adolescent character development, Peck (1958) found that consistency in family life was closely related to emotional and intellectual maturity, willing social conformity, and mature moral behavior. In a time when the adolescent sees life as a space with unstructured regions, unclear and not yet well defined, the adolescent show "shyness, sensitivity, and aggression, owing to unclearness and instability of ground ..." (Lewin, 1939, p. 883).

Youniss and Smoller (1985) suggest that the parent-adolescent relationship will be better understood if the relationship is looked at from a broader perspective -- as one of several relationships the individuals are experiencing, and against the backup of the society surrounding the family. This perspective allows us to perceive the adolescent-parent relationship in alliance together against society. For example, studying the adolescent in terms of different reference groups such as the parents and peers, Goodman (1956) hypothesized that, in order to express a degree of autonomy and power, the adolescent calls upon a different subgroup of the total reference group when interacting with each subgroup. The adolescents in this study conformed more with parents in their peer role and more with

their peers when assuming a family role.   In this way the adolescent
was able to show independence from parents by depending on and
exclaiming norms of the peer group in the family-behavior area, while
conversely calling on the norms of parents when interacting with
peers.

Data presented by Brittain (1963) do not support the traditional
view that youngsters of high-school age shift from parent-conforming
behavior to peer-conforming behavior.   Nor do they completely
reinforce the view that adolescents rely on their parents for all
advice. What person adolescents ask for advice depends upon the kind
of advice that they want.   In some of the less important decisions
adolescents have to make, they are more likely to request this advice
from their friends. On the other hand, for more important decisions,
such as taking a part-time job, they are more likely to turn to their
parents for advice. McKinney et al. (1973) state that the family and
especially the parents are seen as a source of relative stability.
The instability in the adolescent's environment - because of rapid
changes in the adolescent's values - requires that some aspects of
that environment are relatively stable.

The Adolescent - Sibling Relationship

The sibling influence in the adolescent's development is barely
mentioned in the adolescence literature even though the sibling might
be regarded as a third major social agent besides the parents and the
peer group (Lefroncois, 1981; Dusek, 1987).   Family structure
variables such as birth-order, sex-combination, age-spacing, and

family-size appear to be of some importance for the adolescent's development (Sutton-Smith & Rosenberg, 1970). However, these variables considered separately are not strong in explaining personal development. All the family structure variables together explain at most one to five percent of the siblings' personal development (Schvaneveldt & Ihinger, 1979). Sutton-Smith and Rosenberg (1970) provided in a comprehensive summary of all family structure variables, showing that the interaction effects between these variables help to explain personal development, rather than birth-order, sex-combination, age-spacing, or family-size per se. Even though sibling status (birth-order combined with sex) is a locus for specific learning conditions, once these contingencies have been formulated, the study of sibling status itself becomes irrelevant. It is at best a proxy or indicator for something that is going on inside the family. Dusek (1987) concluded that the effects of siblings on the adolescent depend not only on family structure variables but also on the relationship they have with the adolescent and the way they are treated by the parents. It is suggested that siblings can act as effective socialization agents for each other because of their similar experiences. "During adolescence, a sibling is someone with whom interpersonal problems and family disputes can be discussed with the assurance of an understanding ear" (p. 174).

Cicirelli (1980a) also argued in his study with college women that siblings are at times better socializers than parents. They have similar developmental experiences and are closer in age, which may allow them to understand the adolescent's growing problems.

Furthermore, an older sibling can be a useful role model in terms of social behavior such as peer group interactions, dating, getting along with parents, and the like. Thus, siblings may make a unique contribution to the adolescent's development.

Closeness between Siblings: The Contributing Factors

There is a fairly high level of closeness among the majority of brothers and sisters. Most siblings feel "somewhat " or "very close." A study on sibling affect with 8000 adolescent subjects (Bowerman & Dobash, 1974) shows that 61 percent of the female respondents and 39 percent of the male respondents feel close to their siblings. Also, in adulthood 48 percent of the interviewed subjects in Adams' study (1969) reported "a high degree of closeness" to their sibling. Interviews with 109 adults - ranging in age from twenty years to ninety-three years - however, revealed that closeness to siblings changes over time. Out of the 109 subjects, seventy percent reported changes in feelings of closeness over their lifetime whereas in twenty-one cases the sibling had always been close and in six cases the sibling had never been close (Ross & Milgram, 1982). So, sibling closeness seems to be a developmental construct rather than a stable one over the lifespan.

Levinger and Raush (1977) claim that a definition of closeness must contain at least the following social, physical, and psychological components: frequent interaction (social) between spatially near partners (physical) who share significant goals,

exchange personal disclosures, and care deeply about each other (psychological). Until the siblings leave the parents' home, all three components of this definition of closeness can be fulfilled. However, once the siblings leave the parents' home, they are not necessarily physically close any longer and the frequency of interaction may decrease enormously, and yet, the siblings express feelings of closeness (Ross & Dalton, 1981a). Consequently, the above suggested components of closeness are not sufficient to explain sibling closeness, after they have left the parents' home.

Five sets of variables can be distinguished inside the family space contributing to the explanation of closeness between siblings (Ross & Dalton, 1981a). Family space is understood as a modification of Lewin's (1939) idea of the life space.

> The family space is a hypothetical construct which represents all siblings' perceptions of how one should feel, think, and act as a member of a given family. These collective perceptions, which have both common and personal aspects, consist of values, norms, rules, expectations, communication, and interaction patterns governing the family's life (Ross & Dalton, 1981a, p. 15).

Factors contributing to the formation of the family space and as such also contributing to the sibling relationship are: social factors, familial factors, structural factors, personal-interactive factors, and personal factors. Social factors, such as norms of the culture and socio-economic status, societal values, or religious preferences, shape the sibling relationship. Familial factors such as the geographical setting in which the family lives, the parents' child-rearing practices, and family history and tradition also impact on how siblings get along with each other. A third group of variables

is defined by the family structure: number of children, the sex-combination, age-spacing, and birth-order. A fourth category of variables consists of personal-interactive factors. Siblings share values, experiences, and physical space during the time they live in their parents' home. Finally, the fifth category comprises personal factors such as personal interests, abilities, competencies, and other personal characteristics.

It is the complexity of all the mentioned factors, which independently but much more interactively, contribute to the formation of sibling closeness. The following literature review shows that some variables are better predictors of sibling closeness in certain life stages than others.

Relatively little attention has been given to the way that individuals feel about their siblings, even though feelings of like or dislike, trust or distrust may be at the heart of sibling influence and may determine the extent to which sibling ties persist throughout life (Cicirelli, 1980b). In contrast, most studies of sibling influence have investigated the effects of such family structure variables as birth order, family size, sex, and age spacing on measures of a person's intelligence, achievement, personality and even health (Sutton-Smith & Rosenberg, 1970).

Sibling Closeness in Childhood

In childhood sibling interaction is measured either through observation or through information received from parents or teachers. Prosocial behavior, imitation, and positive behavior among young

siblings might be the best estimates of closeness in this age group. Even though the results of the studies are partly in contradiction, they show the strong impact of family structure variables on sibling interaction (Minnett, Vandell, & Sandrock, 1983). The studies agree that older siblings initiate prosocial and antagonistic behavior whereas younger ones imitate behavior. In general, the birth-order variable is controversially discussed in the literature. Whereas some scholars conclude that birth-order contributes very little variance in the attempt to predict the child's personality, others think that birth-order may have a significant effect on the child's overall interaction patterns (Minnett, Vandell, & Sandrock, 1983). Disagreement exists among researchers also with regard to age-spacing. One study (Minnett, Vandell, & Sandrock, 1983) found that children with a widely spaced sibling (three to four years) are more likely to use positive behavior whereas others did not find any age-spacing differences (Dunn & Kendrick, 1982; Abromovitch et al., 1979). Koch (1956) even found that widely spaced siblings experience a more competitive and stressful relationship.

More agreement is found in terms of the children's sex and sex-combination. Girls appear to be more influenced by their siblings than boys and they also are more likely to praise and teach other siblings, whereas boys are more likely to use neutral behaviors (Sutton-Smith & Rosenberg, 1970). Same-sex siblings use more negative behaviors like cheating, aggression and dominance. Interestingly, brothers are the most aggressive group and sisters are the group which cheats the most (Minnett, Vandell, & Sandrock, 1983). Again, this

finding is contradictory to studies which found antagonistic behavior occurring more often in mixed-sex dyads and prosocial behavior more often in same-sex dyads (e.g. Dunn & Kendrick, 1982). The disagreements among many studies need to be treated carefully. Most studies measure slightly different behavioral outcomes, and the ages of their subjects are somewhat different. A direct comparison of sibling behavior in ages three to four and ages seven to eight may neglect developmental changes in the sibling relationship.

Not really surprising is the finding that siblings in childhood spend a great deal of time interacting with each other. Patterns of interactions siblings establish are suggested to affect other social interactions and the course of socialization in general (Abromovitch et al.,1980). Thus sibling interaction in childhood may be an important training field to exercise prosocial behavior early in life and particularly influence the sibling closeness over the lifespan.

Sibling Closeness in Adolescence

Whereas in childhood closeness is measured by the amount of prosocial or positive behavior, in adolescence siblings can be asked how close they feel toward each other. Closeness is sometimes measured on a one-item-scale like: "how close is your relationship with your sibling?" The answers are range from "extremely close" to "not close at all" (Adams, 1969; Bowerman & Dobash, 1974). Cicirelli (1980a) developed a ten-item-scale measuring feelings toward the sibling in a more comprehensive way. For example, the subjects were asked how much they feel that their views on life are similar to those

of the sibling, or how much they feel understood by the sibling. Another question asked how much the subjects feel that their ideas and views are respected by the sibling.

All studies agree that reported feelings of closeness are related to the sex of the respondent and to the sex-combination of the sibling dyad to which the questions about closeness refer. Sisters report higher feelings of closeness toward their sibling than brothers do (Bowerman & Dobash, 1974; Zvonkovic et al., 1987). In Adams' study (19698) the sister-sister pairs were the closest of all sex-combination types with 60 percent reporting a high degree of closeness, whereas only 39 percent of the male respondents representing the brother-brother dyad reported a high degree of closeness. The cross-sex sibling pairs were intermediate with 46 percent reporting a high degree of closeness. Findings in Zvonkovic et al.'s study (1987), however, were in some ways different. Again, it was the sister-sister group having the highest level of closeness, but when the brothers reported about their feelings of closeness to their sisters the score was significantly lower than when the sisters reported about their feelings to their brothers. Bowerman and Dobash's results (1974) also are somewhat different from the two studies above. Their findings suggest that each sex feels closer to a sibling of the same sex. In contrast, in Zvonkovic et al.'s study (1987) females felt equally close to their nearest-in-age sibling, whether the sibling was a brother or a sister.

Birth-order and sibling spacing were the most consistent predictors among the sibling structure variables in Cicirelli's study

(1980a). Subjects later in the birth-order gave higher scores of closeness to their siblings, and siblings with close age spacings received higher closeness scores. The older-younger effect on closeness was also found in Bowerman and Dobash's study (1974) whereas Zvonkovic et al. (1987) found neither older versus younger nor age spacing having an impact on feelings of closeness in late adolescence.

With respect to family size, results showed the two-child family as having the highest sibling closeness (Bowerman & Dobash, 1974). Interestingly, closeness feelings toward a younger sibling were significantly lower in large families than in two-child families, but family size didn't make a difference in feelings of closeness to an older sibling.

Disagreement among the studies' findings are not necessarily surprising. The age-groups of the samples are slightly different and so are the utilized measurements. Closeness was measured with an one-item-scale (Adams, 1969; Bowerman & Dobash, 1974) as well as Cicirelli's ten-item-scale (Cicirelli, 1980a; Zvonkovic et al., 1987). Comparing studies with slightly different age groups may result in understanding developmental effects among adolescent siblings. A study (Bowerman & Dobash, 1974) measuring sibling closeness twice - in early adolescence and late adolescence - found that feelings of closeness decreased over time. Closeness toward brothers decreased considerably; the effect for sisters was only slight. And further, in late adolescence the subjects felt closer to an older sibling than they did in early adolescence. These findings document the developmental character of sibling closeness.

Sibling Closeness in Adulthood

In contrast to the quantitative studies about sibling closeness in childhood and adolescence, in adulthood research consists almost exclusively of qualitative analyses (Ross & Milgram, 1982; Ross, Dalton, & Milgram, 1980; Ross & Dalton, 1981a; Cicirelli, 1977). Content analyses of interviews with seventy-five subjects, ranging from age twenty to ninety-three, showed the important role of the family of origin in adult sibling relationships. The most powerful contributor to feelings of closeness between adult siblings was the framework of the family in which the siblings grew up. The sense of belonging to the family, and of being close to particular siblings, was for most subjects permanently affected by experiences shared in childhood (Ross & Milgram, 1982).

Once the siblings left home to establish professional lives and families of their own, the most important factor in the maintenance of closeness was the foundation laid in childhood (Ross, Dalton, & Milgram, 1980). Besides the family experiences in general, the experiences shared with particular siblings while the siblings still lived at home - study, work, recreational activities, events arising out of common or complementary interests - were the most often reported instances originating feelings of closeness in childhood (Ross & Milgram, 1982). So, early common experiences provide a basis for perceiving the world in similar terms. The closer siblings are in age, the more experiences they share and the higher is the probability for feelings of closeness (Ross & Dalton, 1981a). Interviews with older adults also showed that most participants regarded their

relationship with one particular brother or sister as being especially close. They usually talked about their favorite brother or sister, or they singled out one sister or brother as having always been close. The emotionally-close sibling in adulthood and among elder people tends to be the sibling closest in age with whom the respondent spent more time (Ross & Dalton, 1981a; Cicirelli, 1977). With increasing differentiation of the siblings' personalities as they grow older, closeness is reflected by increased numbers of references to shared personal values and to shared as well as complementary interests and activities (Ross & Milgram, 1982). When Adams (1969) measured value consensus between adult siblings, a positive relationship between the siblings' similar view about their values and their affectional closeness was found. Thus, similar views, interests, goals, and values explain closeness among adult siblings.

Differences between Closeness in Adolescence and Adulthood

Whereas studies exploring sibling closeness in adolescence usually refer to family structure variables, shared experiences in the past is the focus in research about adult sibling relationships. Zvonkovic et al. (1987) found in their study about sibling closeness in late adolescence however, that neither family variables - except the sex-combination of the sibling dyad - nor shared experiences in the past explain sibling closeness. Rather, feelings of similarity, amount of contact, and feelings of rivalry were the best predictors of sibling closeness. Also, Adams (1969) explained the finding of

closeness among young adult sisters by the fact that they share similar roles at the same time. For example, sisters may feel close when they undergo their first experiences in the mother role together. Consequently, in adolescence and early adulthood closeness seem to depend heavily on actual, current sibling interaction whereas in later adulthood closeness is best predicted by common experiences in the past.

That closeness between adolescent and adulthood siblings are two different constructs is further supported by Cicirelli's findings (1985b). Interviews with middle-aged adults showed 78 percent of the subjects reported they get along well or very well with each other. But when they were asked for the extent to which they felt that they could discuss intimate topics with their siblings, quite a high percentage (36%) said that they would do so rarely or never. Even though most siblings say they feel close, relatively few talk over important decisions in their lives with their brothers or sisters. It is much more their shared interest in the family unit of origin, and their developed perception of how they should feel, think, and act as a member of this family which makes them feel close. In contrast, the current amount of contact contributes to explaining sibling closeness in adolescence in a study in which siblings in late adolescence no longer lived together in their parents' home (Zvonkovic et al., 1987). One might suppose that talking to each other about the adolescent siblings' current problems is connected to their feelings of closeness. However, further research is needed to support this suggestion.

Rivalry between Siblings

Sibling rivalry is a part of the sibling relationship. Experiences of rivalry like other shared experiences in the sibling relationship influence the socialization process and personality development of each sibling. The term rivalry is derived from the Latin word "rivalis" and means "having rights to the same stream" (Bank & Kahn, 1982). In childhood this means that siblings are vying for the parents' attention, recognition, and love, but also a more general juggling for power and position among siblings. In adolescence and adulthood sibling rivalry may be expressed through competition with issues like social acceptance or professional achievement - issues which are defined through the norms and values of the larger social context.

In general, rivalrous feelings among siblings are widespread. In group interviews conducted with 55 participants, ranging from age twenty-five to ninety-three, Ross and Milgram (1982) found that seventy-one percent of the interviewees experienced rivalrous feelings toward their brothers or sisters. Of those, thirty-six percent claimed that they had been able to overcome the feelings in adolescence or adulthood, but forty-five percent admitted that the feelings of rivalry were still alive. This demonstrates that rivalry is not a process that terminates after childhood, rather it is an enduring process over the whole lifespan (Powell, 1985). However, the problems leading to conflict situations change over time. As siblings

get older, if rivalry persists, the sphere of competition widens:

> The vying and sparring for parental love becomes translated
> into jockeying for the world's favors. Who has more? and
> who has   achieved more? is the yardstick which measures the
> rivalry of adulthood (Fishel, 1979, p. 153).

Adult siblings have considerable power to help or hurt each
other's sense of personal worth, especially in the areas of
achievement and success, sexuality and beauty, and social relations
with peers (Bank & Kahn, 1982). Further, it is possible that adult-
initiated or condoned rivalry in childhood becomes a model for
sibling-generated rivalry in adolescence and adulthood (Ross &
Milgram, 1982). Much of adult sibling conflict might be based on what
seemed in childhood to be the ultimate prize in life - to be the one
and only in the eyes and hearts of our parents. Arguments and hurtful
put-downs in adulthood over money and social standing are usually no
more than versions or carry-overs of childhood contests (Arnstein,
1979).   In   sum,   sibling   rivalry   like   sibling   closeness   is
developmental in nature and can be an enduring process over the whole
life (Bank & Kahn, 1982).

Sibling Rivalry: A Contributor to Personal Development

The literature about sibling rivalry mainly concentrates on the
negative aspects of this phenomenon.   Few books (e.g. Bank & Kahn,
1982) emphasize the positive sides of rivalry as well. Still less
attention has been paid to the coexistence of rivalrous feelings and
feelings of closeness between siblings at the same time.

Some sibling relationships appear to be balanced on a

fulcrum of equality, with brothers and sisters close in age constantly contesting and challenging each other while striving for individual uniqueness. Concepts of difference prevail but are tempered by ongoing feelings of affinity and respect (Bank & Kahn, 1982, p. 99).

Recently, scholars warned not to consider the relationship between siblings in terms of a single dimension of warmth versus hostility or closeness versus rivalry since this approach excludes the richness of the natural dialectic between these phenomena (Dunn & Kendrick, 1982).

Observational data in Dunn and Kendrick's study (1982) with young children also showed that it is quite common for most children to demonstrate friendly social behavior and some physical aggression at the same time. Children who reacted with extreme upset at a baby's distress also became very concerned when the baby was in a potentially dangerous situation. Consequently, sibling rivalry is not a barrier to friendship but in many cases a necessary and natural part of it: without conflict there may be no solidarity and without contradiction, no development. Aggression between siblings usually goes along with rivalry and is a major vehicle for the sibling interaction, even though it can be painful and insulting (Felson, 1983). Aggression in a familiar situation may lead to closer contact between the siblings: "Anyone who ever observed two brothers wrestling will have noticed that along with the pinches and punches, there is an enormous amount of bodily contact" (Bank & Kahn, 1982, p. 198). In extreme cases fighting, punching can help children to know that they are living, by drawing a reaction from a familiar and intimate enemy (Bank & Kahn, 1982).

Furthermore, sibling rivalry forces the participants to learn how to manage and resolve conflicts. The fact that they know each other very well and that they have a great deal of empathy for one another can activate the development of courage and creativity and also competence, morality, and feelings of loyalty. Siblings learn skills such as how to deflect aggression, how to use it in the right moment. Thus, rivalry is a constructive dialectic and supports both socialization and personal development (Bank & Kahn, 1982).

Sibling rivalry contributes constructively to personal development beyond the formative years in childhood and early adolescence. Rivalry can be a prod to achievement in adolescence as well as adulthood. For example, a case study showed two sisters having a bitter relationship since childhood were both classified as achievers. In interviews, they speculated that their impetus may well be the sibling rivalry that still exists (Arnstein, 1979). In another study with adult siblings (Ross & Milgram, 1982) some subjects even interpreted that rivalry could be even fun and serve to motivate them. Especially if siblings have the ability to live up to high standards, comparative expectations are not necessarily debilitating.

Numerous siblings of famous people have described their famous brothers and sisters as inspirations. There was competition and rivalry, especially during late adolescence and early adulthood when the establishment of a professional identity was a high priority. But once both had found their own areas of expertise, rivalry disappeared (Ross & Milgram, 1982). Consequently, late adolescence and early adulthood, the time when siblings establish their own career, may be a

second peak of rivalry after a first upheaval during childhood.

Sibling Rivalry: A Constructive or Destructive Contribution to Personal Development?

Sibling rivalry can assume a huge array of behavior, reaching from exchanging arguments and having heated discussions to beating up each other. According to Strauss (1983) sibling rivalry can consist of an expressive, hostile part and an instrumental part. The latter one is seen as natural and necessary among siblings to support their development, whereas the expressive and hostile part leads to sibling violence. Confusion among parents as well as researchers about these two components is suggested to be the main reason for the high tolerance level of violence among siblings (Felson, 1983; Strauss et al., 1980). Terms like sibling rivalry, violence, aggression, and conflict are often used interchangeably. As a consequence it is not clear when these expressions indicate a natural and healthy behavior and when they indicate sibling abuse. The urgency of clarification is supported by Steinmetz's finding (1978) that violence among siblings is the most prevalent form of family violence.

Changes in Sibling Abuse over the Lifespan

During childhood and early adolescence, physical violence like kicking, slapping, biting or hitting mainly occurs between siblings (Strauss et al., 1980). In contrast, in late adolescence and

adulthood, emotional abuse is the prevalent form. Siblings become more "sophisticated" in the ways they abuse each other. For example, if one sibling is emotionally dependent on the other sibling, the second one is in a powerful position and may exploit the brother or sister emotionally (Garbarino, 1980). Consequently, even though physically violent acts between siblings decrease rapidly with increasing age, abuse as a total may not decrease over the lifespan.

Rivalry between Siblings: The Contributing Factors

Much of the literature on sibling rivalry consists of descriptive studies with small sample sizes (e.g., Levy, 1937 and 1939; Arnstein, 1979; Cicirelli, 1982; Ross & Milgram, 1982). Quantitative studies which explore sibling rivalry in adolescence and adulthood based on a large sample size are rare.

The Parental Impact on Sibling Rivalry

Parental favoritism, expressed as preferential treatment and overt comparison, are the main reasons for adult-induced sibling rivalry during the formative years of the children (Ross & Milgram, 1982). In a theory of sibling conflict with respect to parental treatment developed by Ihinger (1975), the amount of conflict is related to norms of distributive justice or equity which exist within the family. The consistency and congruity with which the parents enact the referee role directly influence the degree of sibling conflict. Less conflict between siblings is associated with referee

behavior which is consistent and also based on principles or rules which are verbally communicated to the children. Bank and Kahn (1982) conclude:

> Effective refereeing of children's jealousy and aggression requires mature parents who are relatively free of their own conflicts about aggression and who apply consistent moral principles and communicate them clearly to quarreling siblings (p. 202).

Parental treatment seem to impact sibling rivalry beyond the time when siblings live together with their parents. In Ross and Milgram's study (1982) the most frequently mentioned reason for maintenance of sibling rivalry in adulthood was the parents' continued favoritism of one over the other sibling. Contrary to this finding, Zvonkovic et al. (1987) found in their study with siblings in late adolescence that parental treatment had only a slight impact on how rivalrous the adolescent respondents felt. In another study (Daniels & Plomin, 1985) the researchers were interested in whether adolescent siblings experience their parents' treatment differently. Three hundred and ninety-six adolescent and young adults were asked to compare parental treatment (parental affection and control) directed toward the sibling and themselves. Fifty-six percent of the siblings reported similar parental treatment, 34 percent "a bit" of difference, and only 9 percent reported much difference. The last two studies show a similar tendency in that parental treatment overall seem to be democratic in adolescence and therefore not a main source of sibling rivalry. However, the studies' samples are drawn either from a college population or a population with a socioeconomic status which was significantly above average. The generalization of results therefore

is limited.

Family Size.   The literature suggests that family size has an impact on sibling rivalry.   One chain of argumentation is that the greater the number of young children the less able are parents to give large amounts of time to any child.   The children accept the situation as a fact of life and are less inclined to fight or to depend on adults to settle disputes (Sewall & Smalley, 1930; Levy, 1937). Arnstein (1979) argued that in large families jealousies - often intense in small families - are frequently reduced.   Sisters and brothers form so many different ever-changing cliques, factions, and pairs that each youngster nearly always has some champion to turn to. In contrast to these arguments Bossard and Boll (1956) pointed out that large family living makes for pressure upon its members and pressure makes for competition.   If the assumption is correct that parental punitiveness, supportiveness, and reasonableness directed toward the children have an impact on sibling rivalry, then Kidwell's study (1981) supports this way of argumentation as well.   With increasing family size, parental reasonableness and supportiveness decreased whereas punitiveness increased.   Hence, large families seem to have a higher potential for rivalry.   In contrast to these controversial findings, Zvonkovic et al. (1987) found no evidence that family size influences the degree of perceived sibling rivalry.

Sex of Siblings.   Feelings of rivalry toward a sibling are suggested to be different depending on the sex-combination.   Same-sex

siblings seem to have a higher level of rivalrous feelings than cross-sex siblings (Sutton-Smith & Rosenberg, 1970). Zvonkovic et al. (1987) found sisters having a higher degree of rivalry than the sister (respondent)- brother dyad. Unlike in the case of sibling closeness however, there is no evidence that female respondents in general report feelings of rivalry systematically different from male respondents. And again, based on the assumption that different parental treatment (supportiveness and reasonableness) is protective against sibling rivalry, Kidwell's (1981) findings support the sex-differences: 1700 adolescent boys perceived their parents were more supportive and reasonable when their only sibling was a sister rather than a brother.

Older versus Younger Sibling. Findings about the relationship between being the older versus the younger sibling and sibling rivalry are scarce. In Zvonkovic et al.'s study (1987) feelings of rivalry didn't differ with respect to this variable. There is however evidence that first born children have stronger feelings of rivalry toward the younger sibling especially if the age-space between them is more than one year and less than four years (Adler, 1959; Schachter, 1982). The process of dethronement after a sibling's birth seems to be particular difficult for this group. As a result, strong feelings of rivalry might emerge.

Sibling Agreement about the Feelings of Rivalry

As in sibling closeness, most of the information about sibling rivalry is based on information from one sibling only (e.g. Ross & Milgram, 1982; Cicirelli, 1982). This information cannot reveal whether siblings agree or disagree about their feelings. One might suggest that it is not only how intense the rivalrous feelings between siblings are that predicts their relationship, but whether the siblings agree about their feelings or not. For example, in Arnstein's separate interviews with two achievement-oriented sisters, both sisters reported that they got along with each other pretty well despite their feelings of rivalry since childhood. It may be suggested that their way of coping with the rivalrous feelings was possible because the two sisters were in agreement about these feelings. Similar inferences can be drawn from interviews with brothers and sisters of famous people (Adams, 1981). The fact that one of them is the famous one - the "better one" - may have forced the sibling pair to explicitly consider their relationship. For some pairs, this examination has helped them to cope with this situation successfully and the famous sibling is perceived as a source of inspiration for the less famous one despite competition and rivalry. In sum, based on case studies, one might suggest that in order to understand the sibling relationship, their level of agreement about their relationship should be taken into consideration.

Purpose of the Study

From the general desire to understand the sibling relationship in late adolescence, two major purposes evolved for this study. Almost all we know about the sibling relationship is based on information from one sibling only (e.g. Bowerman & Dobash, 1974; Cicirelli, 1980b). However, dyadic research about the marital relationship has demonstrated it is incomplete to ask only one part of the dyad and draw conclusions about the dyad as a whole based on this information (Kelley et al., 1983; Bernard, 1972). This criticism applies to the sibling dyad as well. For example, if one sibling perceives the relationship to a brother or sister as close, this does not imply that the latter has the same feelings. In contrast to earlier analyses in which only one individual's perspective was considered, this study considers the viewpoints of both sides of a sibling dyad. Older/younger differences may emerge as each pair has an older and a younger sibling. The first major purpose therefore is to investigate whether the siblings agree about how they perceive the relationship. In this study the extent to which sibling pairs agree about their relationship can be investigated. Further, both siblings' perceptions are taken into consideration together. This means that each sibling pair has a certain dyadic level of rivalry and closeness. The question pursued is whether the siblings' level of rivalry and closeness is related to sibling structure variables.

The second purpose of the study is to find out whether the

siblings' level of agreement about their relationship is related to each individual's perception. Previous analyses of one individual's perspective on the sibling relationship (Zvonkovic et al., 1987) revealed that perceived similarity, feelings of rivalry, and amount of contact explain a good deal about how close one sibling feels to the other. How rivalrous the individuals perceive their relationship depended on feelings of closeness and competition. In this study, the focus is on the question whether these factors relate to the extent to which siblings agree about rivalry and closeness in their relationship.

Research Questions

1. Do siblings perceive their relationship the same way or differently? Do sibling structure variables relate to how the siblings view their relationship?

2. Does the extent to which siblings report similar levels of rivalry and closeness have an impact on their individual feelings about the relationship?

Research Hypotheses

The following hypotheses are based on individual data received from both siblings separately and dyadic information (calculated agreement scores), used when attempting to address the specific research questions. Hypotheses number one and two concern the first research question whereas hypotheses number three and four deal with how high/low agreement between the siblings influences each individual's feelings. The specific hypotheses to be tested are:

1. Within the sibling pairs the individuals' perception of rivalry and closeness will be significantly different, so that the older sibling of the dyad will systematically differ in feelings about the relationship from the younger.

2. The siblings' perception of rivalry and closeness will systematically vary according to sibling structure variables such as the sex-combination of the siblings and the age space between the siblings.

3. The siblings' individual feelings of closeness and competition will systematically vary according to the level to which the sibling pairs agree about the rivalry they feel toward each other (high agreement versus low agreement).

4. The siblings' individual feelings of similarity, rivalry, and their reported amount of contact will systematically vary according to the level to which the sibling pairs agree about the closeness they feel toward each other (high agreement versus low agreement).

CHAPTER III

METHODS

Subjects

The sample for this study consisted of 78 sibling pairs. Out of the 78 pairs there were 23 sister-sister pairs, 43 sister-brother pairs, and 12 brother-brother pairs. This sample was a part of a larger study in which sibling information was available from 428 subjects. The following demographic data referred to the subsample only. Most of the subjects were Caucasian. Eighty-five percent of the respondents were between 18 and 23 years old. The age space between the siblings was in 46.2 percent less than a year to two years, in 41 percent between two years and four years, and in 12.8 percent greater than four years. Most of the siblings (85.9 percent) grew up together until the age of sixteen. The family size varied over the investigated sample. Out of the 78 cases there were 39 two-child families, 24 three-child families, and 15 four-child families and more. At the time the study was done, in nine cases was one of the siblings or both of them married. The majority of the respondents' parents (75.6 percent) were still married at the time when the questionnaire was delivered. The demographic "narrowness" of the sample needs to be considered in subsequent inferences which will

drawn from the data received from this sample.

Procedure

In spring 1986 a questionnaire was distributed to 348 undergraduate students at the end of a class session of an introductory course in Human Development and Family Studies. It took the students ten to fifteen minutes to fill out the questionnaire. They put their answers directly on a computer readable sheet. For reasons of confidentiality, each sibling received a number. The number was constructed such that sibling pairs could be identified. In filling out the questionnaire the students were asked to consider the sibling closest in age to them. The students were also asked to draw a family diagram, including themselves, sex of siblings, and their ages, on the questionnaire. This diagram could help the researchers check the siblings' family constellation. At the end of the questionnaire the students were requested to record the name and address of their sibling. In case they couldn't provide this information, they were told to write down their parents' address or phone number. It was voluntary to the students to supply the researchers with this information. The students were told that a questionnaire would be sent to the sibling, that their information would be treated confidentially, and that the sibling wouldn't be informed about the student's answers.

In a next step, a letter was sent to those siblings for whom an address was available. They were asked about their willingness to

participate in the study. A return postcard signaled to the researchers the siblings' willingness to participate. Subsequently, a questionnaire was sent to those respondents. The family diagram which was provided by the college students was drawn on this questionnaire. The siblings could then approve or correct the diagram. Another purpose of the diagram was to make sure that both siblings referred their answers to the same sibling so that the received information was indeed pair data. A third purpose was to exclude cases in which respondents referred their answers to a step-sibling. The relationship to a step-sibling is too different in nature to be treated as equal to siblings who have grown up together with the same parents.

Useful information was received from 57 subjects. To do pairwise analyses the sample size of 57 pairs was not satisfactory. Since sex-combination of the sibling dyad was perceived as a major independent variable, the available six pairs in case of brother-brother respondents was too small. A second recruitment, following the same procedure, was undertaken with college students in the same course during fall term 1986. This time 80 students filled out the questionnaire. Paired information was obtained in twenty-one cases. As a total, then, information was available from 78 sibling pairs.

Measures

In the first part of the questionnaire the respondents were asked about demographic information. They answered questions about: their

sex and age, the target sibling's sex and age, the age space between the two siblings, and whether the respondent was the younger or older sibling. According to the literature these are the main sibling structure variables which might impact the sibling relationship. At this point it should be mentioned that the term "sibling structure variables" is not found in the literature. The term was chosen in this context to make clear that the study did not include family structure variables such as family size or birth order. Rather, the focus was on structure variables directly related to the sibling dyad, such as the ones listed above.

Two scales which measured the siblings' feelings of rivalry and closeness were included in the questionnaire.

Rivalry Scale

Since a literature search showed that no scale was developed yet to measure rivalrous feelings between siblings the research group devised this measurement. On a five-point scale reaching from "not at all" to "very much" the respondents were asked about their feelings toward the target sibling (see Appendix A, p. 88). For example, feelings of jealousy, begrudgingness, and contempt were measured. The whole scale comprised fourteen different items. The Cronbach's alpha reliability for the rivalry scale was 0.89. The calculated rivalry score could range from fourteen to seventy. Descriptive statistics revealed an average score of 30.12 ($\underline{sd}$ = 10.38). So, expressed feelings of rivalry represented by the overall rivalry score, were slightly below the midpoint of the semantic differential scale with a

score of fourteen, meaning "not rivalrous" and a score of 70 , meaning "very much rivalrous" at the two ends of the scale.

Closeness Scale

This scale was adopted from Cicirelli's closeness scale (1980a). In his study with young college women, Cicirelli developed the scale to measure the women's feelings toward different family members. The measurement consisted of ten items. The adapted form of Cicirelli's scale included questions, for example, about the ability to discuss work, school, and other activities with the sibling (see Appendix A, p. 89). Another question asked whether the respondent's ideas and views are respected by the sibling. Possible answers could range from "not at all" to "very much" on a seven-point scale. The Cronbach's alpha reliability for this scale was 0.91. The overall calculated closeness score could range from 7 to 70. The average score over the whole sample was 45.45 ($\underline{sd}$ = 11.32). So, the respondents expressed a moderate tendency of close feelings toward their sibling nearest in age.

The following factors have been hypothesized to influence sibling rivalry and closeness in addition to the mutual influence of rivalry and closeness on each other: competition, similarity, and the frequency of contact between the siblings. Also, the agreement scores of sibling closeness and rivalry were expected to relate to the siblings' perception of the relationship. All the measurements for the constructs were devised by the research group since applicable

scales could not be revealed by a literature search.

Competition Scale

This scale assessed relationship areas where the respondents were expected to feel competitive toward the sibling according to the related adolescence literature (Dusek, 1987; Lefroncois, 1981). Societal pressure, parental expectations often results in competitive feelings between siblings with respect to school achievement, peer popularity, physical attractiveness, and intelligence. As a total, the competition scale consisted of nine items ranging on a four-point scale from "none" to "very much" (see Appendix A, p. 90). The Cronbach's alpha reliability score was 0.91. The overall score for the competition scale could range from 9 to 36. The average sample score was 18.01 ($\underline{sd}$ = 6.38). The respondents' perceived competitiveness measured on a continuum ranging from "no competition" to "very much competition" was leaning slightly toward the right end of the continuum.

Similarity Scale

The siblings' feelings of similarity were measured on a scale comprising six items. A seven-point scale offered answers from "not at all similar" to "very much similar." Respondents were asked, for example, to rate how similar they and their closest siblings are in terms of personality, values, and leisure interests (see Appendix A, p. 91). The similarity score could range from 7 to 42. The calculated mean score over the whole sample was 23.11 ($\underline{sd}$ = 7.93).

There is a tendency that respondents think they are similar to their nearest-in-age sibling.

Frequency of Contact Scale

The purpose of this scale was to find out about the amount of contact between the siblings over the last month. For example, the respondents were asked how often they talked on the phone to each other, exchanged letters, or visited the sibling. The scale consisted of five different activities. Possible answers on an eight-point scale reached from "once a day or more" to "no contact in the last month" (see Appendix A, pp. 92-93). Thus, the score for frequency of contact could range from 5 to 40. The average score in the sample was 18.96 (sd = 7.68). An application of this score on the eight-point-item scale revealed that the average adolescent respondent either called, wrote, or visited the sibling between once a month and once every two weeks.

Agreement Scores

The agreement scores for sibling rivalry and closeness were calculated by taking the difference between the siblings' individual scores for each item of the rivalry and closeness scale. Then these difference scores of all items were added up over the 14 items of the rivalry scale and 10 items of the closeness scale, separately. A low agreement score means that there was little difference between the siblings' perceptions and consequently agreement was high. For example, for one item, Sue might describe her relationship to Tom as

"very jealous" (score = 5) whereas Tom's perception is "not jealous at all" (score = 1). The difference between the siblings' perceptions for that item is high (agreement score = 4) which means that they do not agree. It shall be emphasized that high disagreement would only be possible if <u>both siblings</u> responded at the extremes of the scale. In contrast, if both siblings feel exactly the same way for example, "very jealous" or "not jealous at all", the resulting agreement score is zero, meaning that sibling agreement is high.

For the rivalry scale the total sibling agreement score over all fourteen items could vary between 0 and 56. Descriptive statistics showed an average agreement score of 16.84 ($\underline{sd}$ = 8.32). For the closeness scale, the total sibling agreement score over ten items could range from 0 to 60. The average agreement score in sibling closeness was 15.39 ($\underline{sd}$ = 6.60). An agreement score of zero means the siblings are in complete agreement whereas an agreement score of 56 and 60 for rivalry and closeness respectively indicates total disagreement inside the sibling dyad.

Summary

In this chapter the procedure of data collection and the measurements of the constructs of interest for this study were introduced. Most scales were conceptualized in such a way to measure the respondents' <u>feelings</u>. Only the frequency of contact scale asked for actual behavior. In sum, the siblings' feelings of rivalry, closeness, competition, similarity, the amount of contact, and the

siblings' level of agreement in rivalry and closeness were the constructs of interest. In the following chapter the reported results will show whether these feelings and the amount of contact differ depending on the sibling structure and the level of agreement between the siblings.

CHAPTER IV

RESULTS

The impact of sibling structure variables on the sibling relationship and the siblings' agreement about their relationship were the major areas of investigation in this study. First, how the siblings' views were related to each other was investigated (via pearson correlations and an analysis of variance) . Then, the sibling structure factors of age-spacing and sex-combination were used as independent variables to examine how they affected rivalry and closeness. A multivariate analysis of variance was conducted with a repeated measure for sibling. Data were configured so that the older sibling's information was first, followed by the younger sibling as a repeated measure. This way, the sibling pairs' level of rivalry and closeness was considered in the analyses in addition to their individual perspectives. Finally, the level of agreement experienced by the sibling pairs was investigated. The question was whether or not the level of agreement between the siblings with respect to rivalry and closeness was related to individual perceptions of the relationship. For this purpose the agreement scores for rivalry and closeness were classified into two groups: the "high agreement group" and the "low agreement group."

The Statistical Package for the Social Sciences (SPSSx) was used to analyze the data. In the following the results of the statistical

analyses will be presented. The analyses are based on slightly different sample sizes as can be seen in the tables and the reported degrees of freedom in the result section. The discrepancies are due to missing information.

The Impact of Sibling Structure Variables on Closeness
and Rivalry

The first hypothesis suggests that the two members of a sibling dyad perceive their relationship in terms of closeness and rivalry differently. One approach to answer this hypothesis entailed examining the within-subject-factor of the multivariate analysis of variance for sibling rivalry and closeness with a repeated measure on sibling. This within-subject-factor should reveal any systematic difference in the siblings' perception of rivalry and closeness over each of the pairs. And indeed, the factor was significant for sibling closeness [F (1,70) = 7.27, p < .009]. The younger siblings of the dyad express higher feelings of closeness than the older siblings (see table 1 for the means). This finding is not surprising since it is consonant with results found already in other studies (Bowerman & Dobash, 1974; Daniels et al., 1985). For sibling rivalry, however, there were no significant differences found between the siblings [F (1,70) = .83, p < .366].

Another way to approach the question of siblings' rivalry and closeness inside the pairs was to consider pairwise correlations. As expected, the siblings' feelings of closeness were positively

Table 1

Mean Scores of Feelings of Closeness by Sibling

Structure Variables

Sex-combination	Older Sibling		Younger Sibling	
	age space less than 2 years	age space more than 2 years	age space less than 2 years	age space more than 2 years
Brother-Brother	39.28	45.00	40.14	42.60
(n = 12)	(sd = 9.46)	(sd = 8.15)	(sd = 14.10)	(sd = 15.37)
Sister-Sister	47.00	43.83	51.50	49.75
(n = 22)	(sd = 10.34)	(sd = 11.26)	(sd = 8.74)	(sd = 10.55)
Sister-Brother	45.17	42.04	45.28	48.75
(n = 42)	(sd = 10.03)	(sd = 11.80)	(sd = 14.05)	(sd = 11.07)
Total sample	43.65[***]		47.25[***]	
(n = 76)	(sd = 10.60)		(sd = 11.99)	

[***]adjacent means significantly different at $p < .025$.

Note: The scores for feelings of closeness could range from 7 to 70, with higher numbers indicating stronger feelings of closeness.

Table 2
Mean Scores of Feelings of Rivalry by Sibling
Structure Variables

Sex-combination	Older Sibling		Younger Sibling	
	age space less than 2 years	age space more than 2 years	age space less than 2 years	age space more than 2 years
Brother-Brother	26.00	25.60	31.42	30.00
(n = 12)	(sd = 9.20)	(sd = 7.43)	(sd = 10.26)	(sd = 8.74)
Sister-Sister	27.80	31.75	33.00	33.75
(n = 22)	(sd = 12.25)	(sd = 11.59)	(sd = 5.84)	(sd = 12.40)
Sister-Brother	29.38	30.62	28.55	30.29
(n = 42)	(sd = 8.97)	(sd = 12.09)	(sd = 10.29)	(sd = 10.59)
Total sample	29.38		30.86	
(n = 76)	(sd = 10.69)		(sd = 10.05)	

Note: The scores for feelings of rivalry could range from 14 to 70, with higher numbers indicating stronger feelings of rivalry.

correlated, $\underline{r}$ = .48, $\underline{p}$ <.001. Evidence from this correlation shows that siblings' feelings of closeness seem to be related to each other. Further, systematic differences in closeness between the older and younger sibling emerged in the analysis of variance.

Somewhat surprisingly, the siblings' feelings of rivalry were not correlated, $\underline{r}$ = .092, $\underline{p}$ < .216. This means that one sibling might feel rivalrous whereas the partner does not experience feelings of rivalry. Evidence from the correlation, then, shows that siblings' feelings of rivalry do not seem to be related to each other. Systematic differences in rivalry between older and younger did not emerge in the analysis of variance. These results indicate a difference between the two phenomena sibling rivalry and sibling closeness with respect to their dynamic inside the sibling dyad.

Hypothesis two concerns whether sibling pairs express rivalry and closeness differently. Sex-combination and age space were used to categorize the sibling pairs, as these two sibling structure factors were thought to impact the sibling pairs' level of rivalry and closeness. The multivariate analysis of variance did not show sex-combination to affect the siblings' feelings of rivalry or closeness [sibling rivalry: $\underline{F}$ (2,70) = .79, $\underline{p}$ < .459; sibling closeness: $\underline{F}$ (2,70) = 1.73. $\underline{p}$ < .185]. The second sibling structure variable, age space, also had no impact on the siblings' feelings. No differences could be detected between the sibling pairs with an age space up to two years versus those pairs with an age space greater than two years [sibling rivalry: $\underline{F}$ (1,70) = .57, $\underline{p}$ < .453; sibling closeness: $\underline{F}$ (1,70) = .00, $\underline{p}$ < .994].

A follow-up analysis with two more extreme age-spacing groups (less than two years age space versus more than four years age space) was done to see whether under these conditions age space would be related to closeness and rivalry. Again, no differences between the two groups could be revealed [sibling rivalry: F (1,40) = 1.15, p < .290; sibling closeness: F (1,40) = .24, p < .630]. This analysis, however, was based on 41 sibling pairs only.

In sum, within the sibling pairs feelings of closeness are perceived differently: younger siblings have stronger feelings of closeness toward their older siblings than vice versa. This finding holds over all sex-combinations of the sibling pairs. Overall, however, the findings corresponding to the first focus of the study do not support the suggested linkage between sibling structure variables and the feelings of rivalry and closeness. Consequently, since the findings are such that sex-combination and age space are not helpful in explaining the siblings' feelings, emphasis needs to be put on other sets of variables that could be helpful in predicting sibling rivalry and closeness.

Parameters describing the present relationship between the siblings, such as sibling competition, sibling similarity or the amount of contact between them, may contribute to explain sibling rivalry and closeness. These parameters may relate to whether siblings are in agreement about their feelings of rivalry and closeness. Findings of statistical analyses that address this suggestion are presented in the following.

Sibling Agreement about Feelings of Rivalry and Closeness

Subsequently the focus will be whether the siblings' level of agreement about their relationship makes a difference in the siblings' individual feelings. Before this issue is addressed, a closer look is put on the question of to what extent siblings agree about their feelings of rivalry and closeness. The frequency distribution for the agreement scores on rivalry and closeness are described.

The frequency distribution of the agreement score in sibling rivalry is presented in figure 1. This figure shows that the majority of the siblings are in nearly perfect agreement (45 %) or have somewhat less agreement (46 %) about their feelings of rivalry. Only in nine percent of the cases was the agreement score inside the sibling dyad between 28 and 44. There was no case with an agreement score in rivalry larger than 44.

Figure 2 shows the distribution of the average agreement score in sibling closeness. It becomes clear that many sibling pairs (56%) are in nearly perfect agreement about their feelings of closeness. In 23% of the cases the agreement score was between 3 and 10. Twenty-one percent of the pairs had a score between 20 and 33. There was no case with an agreement score in closeness larger than 33.

In sum, in sibling closeness as in sibling rivalry most sibling pairs have a somewhat different perception of how close and how rivalrous they feel to each other. This finding is consonant with results in Daniels et al.'s study (1985). They found in a sample of 149 adolescent sibling pairs that about 35% of the pairs estimated
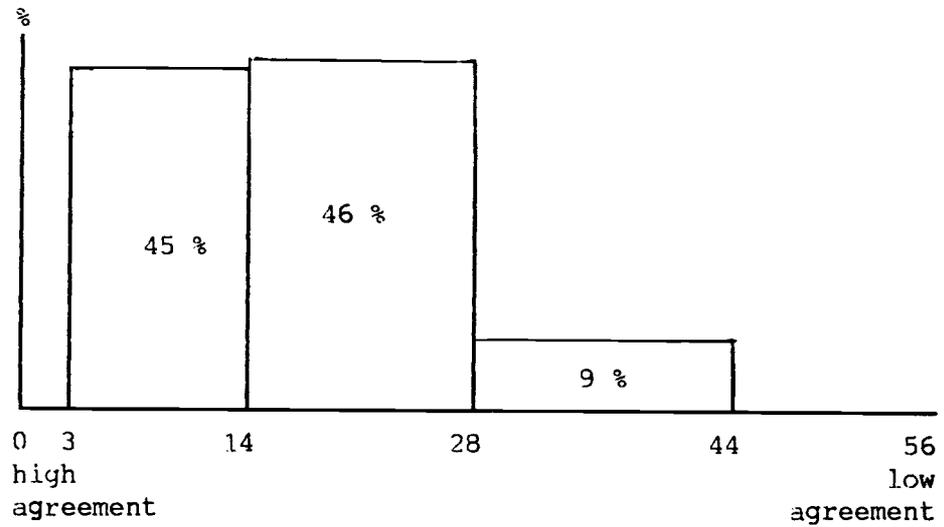
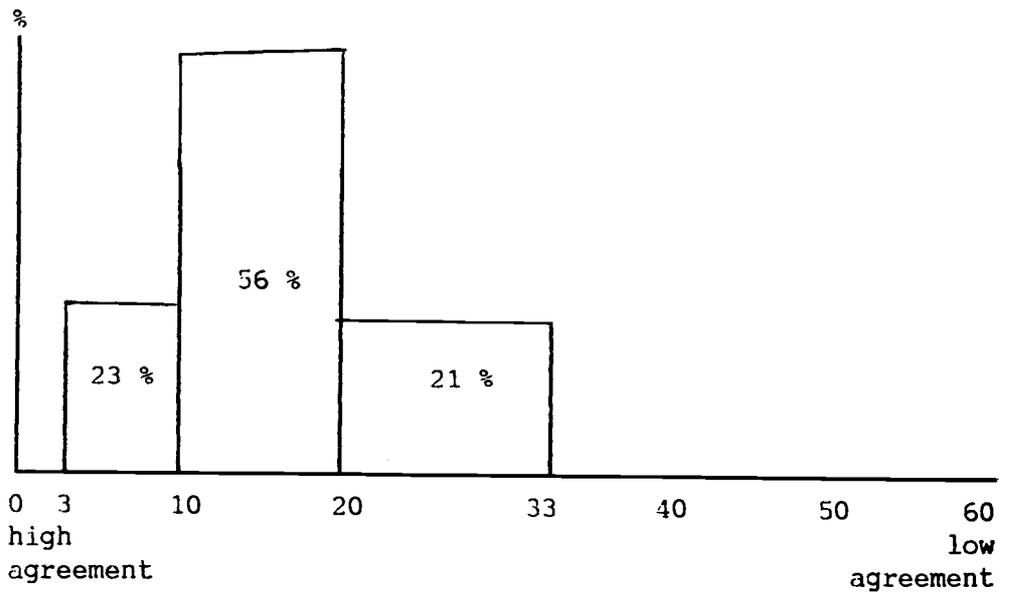Figure 1. Frequency Distribution of the Agreement
Scores in Rivalry.

Figure 2. Frequency Distribution of the Agreement
Scores in Closeness.

their interaction "similar", 50% expressed "a bit of difference", and only 15 % expressed "much difference". Indeed, many sibling pairs are in nearly total agreement about their feelings of closeness and rivalry and yet, most pairs show less than this level of agreement. A subsequent question is, does the level of agreement between the siblings relate to their individual feelings about the relationship?

How does Agreement in Sibling Rivalry Relate to Feelings of Closeness and Competition?

Hypothesis three suggests siblings' feelings of closeness and competition relate to how much agreement the siblings experience in rivalry. It was expected that if the siblings' agreement about rivalry was high, siblings would perceive the relationship in a more positive way (higher similarity and closeness) than if the sibling dyad not agreed. The statistical analyses to test the relatedness between the dyad's agreement and each single sibling's feelings was separately for the group of older siblings and the group of younger siblings, because the siblings' feelings inside the pairs were related and therefore could not be treated as independent variables. Further, the two groups of high and low agreement were distinguished by a median-split procedure. The 50 percent of all sibling pairs with the highest agreement scores in rivalry and closeness were identified as the "high agreement group" whereas the 50 percent with the lowest agreement scores belonged to the "low agreement group."

To test hypothesis 3, two multivariate analyses of variance on

closeness and competition with high/low agreement about feelings of closeness (median-split procedure) were conducted separately for the older sibling group and the younger sibling group. The results of the analyses revealed that if the dyad's agreement about feelings of rivalry is high the older siblings had stronger feelings of closeness than if the dyad's agreement is low [F (1,74) = 4.89, p < .030]. As can be seen on the left part of table 3, the mean score for closeness of older siblings in the high agreement group is 46.35 (sd = 10.38) in contrast to a lower mean score of 41.10 (sd = 10.29) for the low agreement group. No differences were found in feelings of closeness for the younger sibling [F (1,74) = 1.65, p < .204]. Further, feelings of competition were not related to the level of agreement in rivalry, for either the older or the younger sibling group [older siblings: F (1,74) = .23, p < .634; younger siblings: F (1,74) = .40, p < .530].

A follow-up analysis was performed to see whether a more restrictive definition of high and low agreement than the one used in the median-split procedure would reveal further information. This time the high agreement group included only those cases with an agreement score for rivalry one standard deviation above the grand mean of the rivalry score and the low agreement group included only cases with an agreement score below one standard deviation. This approach to categorize the high and low agreement groups led to a sample size reduction of twelve pairs. The following results therefore have only suggestive character. Using this method, both the older and the younger sibling group have significantly higher feelings

Table 3

Mean Scores of Closeness and Competition
by Level of Agreement in Rivalry

	Median-split procedure		Extreme cases only[a]	
	high agreement (n = 38)	low agreement (n = 38)	high agreement (n = 12)	low agreement (n = 12)
Closeness				
Younger Siblings	49.05 (sd = 10.05)	45.54 (sd = 13.49)	51.25** (sd = 9.83)	42.00** (sd = 12.26)
Older Siblings	46.35** (sd = 10.38)	41.10** (sd = 10.29)	50.92*** (sd = 10.94)	40.61*** (sd = 9.97)
Competition				
Younger Siblings	17.00 (sd = 5.97)	17.94 (sd = 6.88)	18.08 (sd = 6.69)	18.77 (sd = 7.56)
Older Siblings	18.89 (sd = 5.52)	18.20 (sd = 6.88)	18.75 (sd = 6.25)	17.15 (sd = 6.51)

***adjacent means between the high and low agreement groups are significantly different at p < .025.

**adjacent means between the high and low agreement groups are significantly different at p < .050.

[a] The high agreement group includes pairs with an agreement score in rivalry one standard deviation above the grand mean; the low agreement group includes pairs whose agreement score were one standard deviation below the grand mean.

of closeness when they belong to the high agreement group in rivalry rather than the low agreement group [older siblings: F (1,23) = 6.06, p < .022; younger siblings: F (1,23) = 4.28, p < .050]. On the right part of table 3, the higher means for closeness in the high agreement group and the significantly lower means in the low agreement group for both younger and older siblings are listed. The table further shows that again the siblings' feelings of competition do not differ between the two groups with more extreme levels of agreement in rivalry [younger siblings: F (1,23) = .06, p < .813; older siblings: F (1,23) = .38, p < .539].

In sum, taking both approaches of classifying high and low agreement together, the findings indicate that there is a tendency that each sibling's feelings of closeness are related to the dyad's level of agreement in rivalry. No such tendency was found between the siblings' feelings of competition and the level of agreement in rivalry.

How does Agreement in Sibling Closeness Relate to Feelings of Rivalry, Similarity, and Amount of Contact?

The strategy to test hypothesis four was the same as for hypothesis three. It was proposed that the siblings' feelings of rivalry and similarity, and the amount of contact between the siblings are related to the level of agreement in sibling closeness. Again, the older siblings have stronger feelings of similarity if the siblings agree highly in closeness than if they disagree [F (1,74)=

Table 4

Mean Scores of Rivalry, Similarity, Competition, and Contact

by Level of Agreement in Closeness

	Median-split procedure		Extreme cases only[a]	
	high agreement	low agreement	high agreement	low agreement
	($\underline{n}$ = 38)	($\underline{n}$ = 38)	($\underline{n}$ = 11)	($\underline{n}$ = 11)
Rivalry				
Younger Siblings	28.70*	32.92*	23.45***	36.36***
	($\underline{sd}$ = 9.09)	($\underline{sd}$ = 10.58)	($\underline{sd}$ = 8.44)	($\underline{sd}$ = 14.71)
Older Siblings	28.13	30.75	27.72	31.00
	($\underline{sd}$ = 10.64)	($\underline{sd}$ = 10.66)	($\underline{sd}$ = 12.29)	($\underline{sd}$ = 12.89)
Similarity				
Younger Siblings	25.02*	21.61*	29.81***	19.54***
	($\underline{sd}$ = 7.41)	($\underline{sd}$ = 8.17)	($\underline{sd}$ = 8.74)	($\underline{sd}$ = 10.82)
Older Siblings	24.97**	20.82**	30.27***	16.90***
	($\underline{sd}$ = 7.66)	($\underline{sd}$ = 7.74)	($\underline{sd}$ = 9.01)	($\underline{sd}$ = 9.12)

Table 4 (continued)

	Median-split procedure		Extreme cases only[a]	
	high agreement (n = 38)	low agreement (n = 38)	high agreement (n = 11)	low agreement (n = 11)
Competition				
Younger Siblings	16.16*	18.74*	12.00***	18.54***
	(sd = 5.59)	(sd = 7.15)	(sd = 3.49)	(sd = 7.92)
Older Siblings	17.21*	19.78*	15.55	16.82
	(sd = 5.39)	(sd = 6.67)	(sd = 6.20)	(sd = 5.86)
Contact				
Younger Siblings	19.51	20.48	19.18	18.18
	(sd = 8.01)	(sd = 9.07)	(sd = 7.52)	(sd = 8.95)
Older Siblings	17.67	18.05	17.18	15.90
	(sd = 6.02)	(sd = 7.30)	(sd = 6.44)	(sd = 8.50)

*** adjacent means between the high and low agreement groups are significantly different at $p < .025$.

** adjacent means between the high and low agreement groups are significantly different at $p < .050$.

* adjacent means between the high and low agreement groups are significantly different at $p < .085$.

[a] The high agreement group includes pairs with an agreement in rivalry one standard deviation above the grand mean; the low agreement group includes pairs whose agreement score were one standard deviation below the grand mean.

5.56, p < .021]. For the younger sibling, there is a tendency that feelings of similarity are stronger in the high agreement group [F (1,74) = 3.62, p < .061]. Interestingly, for the younger sibling, there is a tendency for feelings of rivalry to be lower when agreement about closeness is high [F (1,74) = 3.46, p < .067] The amount of contact reported by the siblings does not relate to the dyad's level of agreement in closeness [older siblings: F (1,74) = .06, p < .808; younger siblings: F (1,74) = .24, p < .622].

Hypothesis four did not suggest the siblings' feelings of competition would be related to the level of agreement in sibling closeness. Nevertheless, competition was examined here as it had not been shown to relate to agreement in rivalry. There is a tendency for all siblings to have less feelings of competition when they belong to the group with high agreement in closeness than to the low agreement group [older siblings: F (1,74) = 3.38, p < .070; younger siblings: F (1,74) = 3.05, p < .085].

To shed more light into the findings for hypothesis four, again the high and low agreement group for feelings of closeness were chosen more restrictively. The sample size was reduced by so doing. Eleven pairs remained for both the high and low agreement group. Even though the results of this analysis have only suggestive character, because of the small sample size, it is interesting to find that four effects out of five which were found already by the median-split procedure now became statistically significant (see the right part of table 4). As the means on table 4 show, both older and younger siblings have significantly higher feelings of similarity in the high agreement

group as compared to the siblings of the low agreement group [older siblings: F (1,20) = 11.94, p < .002; younger siblings: F (1,20) = 5.99, p < .024]. Further, younger siblings' feelings of rivalry are less in the high agreement group of closeness than in the low agreement group [F (1,20) = 6.36, p < .020]. And finally, table 4 shows younger siblings have significantly lower feelings of competition when they belong to the high agreement group in closeness than when they belong to the low agreement group [F (1,20) = 6.27, p < .021].

To summarize the findings for hypothesis 4, if considering both approaches to classify high and low agreement groups, the tendency is clear for siblings' feelings of similarity to be related to the level of agreement in closeness. Feelings of rivalry, only for younger siblings, relate to the level of agreement. How much contact the siblings had does not relate to agreement in closeness, neither for the younger nor the older siblings.

Summary

First, the focus was on different sibling perceptions within the pairs. The younger siblings have higher feelings of closeness than the older siblings; the siblings' perceptions about sibling rivalry do not differ. When the focus was on differences between sibling pairs, the pairs belonging to different sex-combination groups and age-spacing groups did not differ from each other with respect to rivalry and closeness. In contrast, when the sibling pairs were classified

into high and low agreement groups for rivalry and closeness, the siblings with high agreement expressed often times different feelings about the relationship than those who are in low agreement. In the following chapter the results are discussed, conclusions are made and limitations of the study are presented.

CHAPTER V

DISCUSSION AND CONCLUSIONS

Adolescence: A Special Time for the Sibling Dyad?

As the literature review showed, siblings may play an important role for each other during adolescence. In pursuing one's identity, the older sibling can be a role model and sometimes even assume the role of a hero for the younger sibling. These functions might support feelings of closeness between the siblings. On the other hand, experiences of rivalry and competition exist in late adolescence and contribute to the adolescent's identification process as well. One might raise the question whether the siblings experience feelings of closeness and rivalry in a similar intensity or not during this time. Maybe the younger sibling perceives the older one as someone to look up to and therefore develops stronger feelings of closeness than the older sibling. In contrast, because of the adolescent's desire to define an identity, this person may want to be very different from the sibling. As a consequence the adolescent might overemphasize the differences to the sibling and express feelings of rivalry and closeness on purpose in the opposite direction from the sibling (Schachter, 1982). Agreement between the siblings' views would then be expected to be low. Can one sibling in adolescence maintain good feelings about the other if the other disagrees about how close and

rivalrous the relationship is?   The data from this study provided light on these issues.

In the following, findings about the sibling structure are discussed, results about sibling agreement are interpreted, and two possibilities to measure agreement are compared.   Then, a comparison of the constructs of rivalry and closeness follows. The study's limitations and suggestions for further research   conclude this chapter.

Different Feelings between the Younger and Older Sibling
in Adolescence

The findings of this study show that siblings have different feelings of closeness in adolescence. The younger sibling's feelings are stronger than those of the older sibling. The older sibling might be perceived as a mature person to whom the younger sibling feels attracted and therefore develops stronger feelings of closeness than the older sibling does. A subsequent question is whether the reason for the siblings' different perception is a typical pattern in adolescence or whether it is connected to being the older versus the younger sibling of the dyad.   In this study, the group of older siblings was not significantly older in age than the group of younger siblings and yet, they had different perceptions of closeness. It shall be recalled that the terms older and younger sibling do not stand for the siblings' absolute years of age; rather they express the siblings' birth order in relation to each other.   One might suggest

that feelings of closeness are related to being the older or younger sibling per se. Results of longitudinal studies could uncover whether younger siblings indeed have stronger feelings of closeness throughout their lives than older siblings.

The Impact of Other Sibling Structure Variables on Rivalry
and Closeness

As the findings of this study indicate, to be born a certain distance from the sibling, as well as the sex-combination of the siblings, does not seem to impact the experiences of rivalry and closeness heavily. The lack of sex-combination effects on sibling rivalry and closeness are unexpected, since previous analyses (Zvonkovic et al., 1987) showed some evidence that feelings of rivalry and closeness are different depending on the siblings' sex-combination. A reason for the discrepancy between the findings might be that the previous study was based on a larger sample whereas in this project the sample comprised only 78 pairs. Particularly in the case of brother-brother dyads, pair information was available from 12 dyads only. Unfortunately, this small group of brother-brother pairs has closeness scores that appear lower than the other sex-combination groups (see table 1). A larger sample size for this particular group might reveal brother-brother pairs having significantly lower feelings of closeness. Also, as reported in table 2, it is the older brother of the brother-brother group who has the lowest feelings of rivalry over the whole sample. Again, a larger sample might have shown this

group having significantly less feelings of rivalry than the rest of the sample.

The second sibling structure variable of investigation, age space, did not relate to feelings of closeness and rivalry either. This finding does not go along with results found in earlier studies (e.g., Sutton-Smith & Rosenberg, 1970) which found siblings close in age having stronger feelings of closeness. The argumentation is such that siblings close in age live through similar developmental stages at the same time and therefore also feel closer to each other than siblings not close in age.

In this study the sibling pairs were divided into two age-spacing groups. The line of demarcation used was two years of age difference, a split already used in an earlier study (Kidwell, 1981). Since the majority of sibling paris (79.51%) were either only one to two years or two to three years of age apart from each other the split may not have been discriminating enough to find the siblings' feelings to be different in the two age-spacing groups. It shall be remembered that in this study the focus was on sibling dyads nearest in age; it is not surprising that most sibling pairs have between one and three years age difference. Different studies with a wider variability in age-spacing could address the question about age space in a better way. Concluding that the structure siblings are born into are not as important as has been assumed, in the next section the characteristics of the current relationship are the focus of the discussion. These factors were expected to be of greater importance than the sibling structure.

Sibling Agreement and the Siblings' Individual Feelings

This research pursued several ways of investigating whether the extent to which siblings agree about rivalry and closeness relate to their individual experiences of their relationship. The notion was that agreement would allow the characteristics of a quality relationship to emerge. The findings show a clear tendency that the siblings' expressed feelings are indeed related to how much they are in agreement about rivalry and closeness. One may recall that agreement in rivalry was related to both siblings' feelings of closeness, and agreement in closeness was related to the younger siblings' feelings of rivalry and competition, and to both siblings' feelings of similarity. The median-split was the first procedure to divide high and low agreement groups; the consideration of only those sibling pairs with extremely high or low agreement scores was the second procedure to categorize the agreement groups. In the next two paragraphs the data are interpreted in two different ways.

One way to look at the data is to compare the results of the two procedures (see table 3 and 4). It becomes clear that in the median-split procedure many effects showed only a tendency for sibling agreement and individual feelings to be related. Almost all these same effects became highly significant ($p < .025$) when the more restrictive approach with extreme cases only was employed. This revealed pattern is evidence that overall the level of agreement between siblings is related to their individual feelings. It needs to

be said that the sample sizes were small (11 and 12 sibling pairs) when the analyses included only dyads with very high or low agreement scores and the results therefore have only tentative character.

The second way to look at the data is to focus only on the median-split procedure since this approach is based on a reliable sample size ($\underline{n}$ = 38). The most reliable findings (associated with a significance level below $\underline{p}$ < .05) are considered. Older siblings have stronger feelings of closeness if the siblings agree highly about rivalry than if agreement is low (see table 3). And older siblings have stronger feelings of similarity in the group of high agreement about closeness than in the low agreement group (see table 4). In both cases it is the older siblings' feelings that differ when the sibling dyad is in agreement versus not in agreement. Are older siblings typically more influenced by the younger siblings' feelings than vice versa? It could be that older siblings have strong feelings of responsibility toward the younger sibling. This would go along with the finding that older siblings initiate more prosocial behavior than younger siblings (Minnett, Vandell, & Sandrock, 1983). Their feelings of closeness and similarity might reflect a way of thinking that incorporates many thoughts about the younger sibling and the relationship to this person. In contrast, younger siblings might tend to express feelings of similarity and closeness more spontaneously, not including so many considerations about what the older siblings' feelings are in relation to the own feelings. In the next two sections sibling agreement about closeness and rivalry are discussed separately.

Agreement about Rivalry

Considering agreement about rivalry (see table 3), evidence from both types of agreement groups shows older siblings (and a tendency for younger siblings) to have stronger feelings of closeness if the dyad shares an opinion about rivalry than if their opinions are not shared. In other words, if siblings have come to a consensus about their feelings of rivalry, then they are able to feel closer. When feelings of rivalry are not agreed upon, the tendency is for neither sibling to feel as close.

It is not surprising to find that siblings' feelings of competition are not different in the high and low agreement groups of rivalry. When siblings are rivalrous, very often competitive behavior goes along with these feelings (Bank & Kahn, 1982). This does not imply, however, that the more siblings agree about rivalry, the less competitively they behave.

Agreement about Closeness

In the following the focus is on sibling agreement in closeness. As table 4 shows, both siblings have stronger feelings of similarity if they are in agreement about their feelings of closeness than if the agreement level is lower. This finding is consistent with Schachter's deidentification theory (1982). Often times it is <u>one</u> sibling who on purpose claims to be "very different" from the other sibling. The

deidentified sibling would have a different opinion about the relationship and would thus not be in agreement with the other about how close they are. When these same sibling pairs are asked about how similar they are, they both might then conclude they are not similar, as one sibling so badly tries to emphasize differences between the two.

Further results in table 4 show a tendency for younger siblings' feelings of rivalry and competition to be lower if the siblings have a shared perspective about closeness than if they do not agree about closeness. How strongly the degree of agreement can impact individual feelings can be seen by comparing the younger siblings' score of rivalry to those of the rest of the sample (see table 4). Younger siblings who share their point of view of closeness with the older sibling have the lowest feelings of rivalry of the whole sample ($\overline{X}$ = 23.45) when only extreme cases of agreement were considered. In contrast, younger siblings in low agreement with older siblings about closeness have the strongest feelings of rivalry ($\overline{X}$ = 36.36) of the whole sample. It seems the younger siblings' feelings of rivalry are quite sensitive as to whether siblings have a shared perspective of closeness or not. This person may look up to the older sibling who is more mature and has already solved problems about identification. The younger sibling may have less reason to feel rivalrous if the dyad shares the same views about closeness.

Summary

As the findings show, the evidence is strong that individual feelings about the sibling relationship are related to whether siblings have similar views about their relationship. If siblings can work out a shared view of closeness, this is particularly helpful to the younger sibling for reducing feelings of rivalry and competition. The same shared view is associated for both siblings with stronger feelings of similarity. Similar opinions about how rivalrous the relationship is go along with stronger feelings of closeness for both siblings. And yet, it seems to be somewhat more important to the older sibling to have a shared view of rivalry than for the younger sibling. One might raise the question whether or not older siblings take a more judicious approach to the relationship. Therefore, they experience feelings of closeness in a more reciprocal manner than the younger sibling does. A shared view about feelings of closeness is particularly supportive for the younger sibling. It is beneficial for both siblings to be in agreement about their feelings of rivalry. The discussion will now focus on the construct of agreement.

The Measurement of Sibling Agreement

There are different ways to estimate the siblings' degree of agreement. The approach chosen in this study compared both siblings' independently reported feelings about their relationship. To be as precise as possible, not the siblings' overall scores for rivalry and

closeness were compared, but rather each single item of the two scales was placed side by side for the two siblings. By doing so, the different degrees of agreement for each single item were taken into consideration. A comparison of the overall scores of rivalry or closeness would have ignored the variability of agreement inside the two scales.

Another way of measuring sibling agreement would be to ask only one sibling about the perception of how much agreement there is between this person and the sibling nearest-in-age. This approach was chosen by Daniels et al. (1985). They asked for example: "Who has been more jealous toward the other in the past?" Answers revealed whether the siblings' feelings were equally strong, which was interpreted as sibling agreement. If one sibling was perceived to have stronger feelings than the other, this indicated disagreement between the siblings. At least two disadvantages go along with this approach. First, the question is how accurately can respondents estimate their siblings' feelings and then compare those to their own feelings? This approach would seem to involve complex mental arithmetic of the sort criticized by Kelley et al. (1983). Second, the respondents are asked to compare themselves with the sibling and come up with an evaluation about the relationship. This process of comparing could lead the respondents to focus on the differences between their feelings even though there may not really be that much difference between the two siblings. Evidence for this possible distortion is given by Schachter's theory of deidentifiction (1982) which argues that many siblings do not want to be compared all the

time, and as a reaction they tend to overemphasize how different they are.

In contrast to this second approach, the one chosen in this study is such that the respondents report their feelings without being asked to make any conditional considerations. Hence, immediate answers to the questions about their feelings are possible and distortion by asking for a comparison would be reduced. It is important to recall that the "agreement" discussed in this research does not refer to the extent that siblings might affirm one another's viewpoint if this viewpoint had been presented to them. It is, in fact, an incidental agreement about the relationship, not a vision of the relationship explicitly shared or discussed.

Rivalry and Closeness: A Comparison of the Two Constructs

Rivalry and closeness comprised the fundamental characteristics of the sibling relationship investigated. These two dimensions were viewed as the dominant themes of sibling relations. There are many ways of looking at rivalry and closeness inside sibling dyads. The chosen ways in this study are discussed in the following.

First, pairwise correlations disclosed the siblings' feelings of closeness to be correlated whereas their feelings of rivalry were not correlated. Second, systematic differences were found between the older and younger siblings' feelings of closeness; their feelings of rivalry were not different. Third, the frequency distribution of the agreement scores showed slightly different patterns for rivalry and

closeness (see page 57). As figure 1 shows, in rivalry the vast

majority of the sibling pairs are in relatively high agreement,

whereas in closeness (see figure 2) sibling agreement is somewhat more

spread between high and low agreement. And fourth, it was found that

agreement in rivalry relates to both siblings' feelings of closeness

whereas agreement in closeness relates only to the younger siblings'

feelings of rivalry.

All these differences between rivalry and closeness support the

proposal that the two constructs are different - both how they develop

between siblings, and how siblings deal with rivalry and closeness.

Detailed inferences about what it is that makes their development

inside the sibling dyad different are difficult since the findings are

varied and complex. And yet, new valuable information is gained by

taking different ways to investigate sibling rivalry and closeness.

It appears that the older sibling might be more in a reciprocal

position in the relationship, whereas the younger sibling's position

could be described as more individualistic, since the older sibling

needed to have the younger agree about the relationship in order to

feel close. Maybe the younger sibling can feel closer to the older

sibling, expressing these feelings spontaneously without thinking so

much about other aspects of the relationship. The older sibling's

feelings of closeness are less strong and depend more on how the

sibling evaluates other aspects of the relationship. It is further

possible that siblings who are in agreement feel better about their

relationship than those who disagree. And yet, sibling agreement and

feeling good about the relationship are not necessarily the same. As

became evident earlier, older siblings do not feel closer if they are in high versus low agreement about rivalry with the younger sibling. The siblings' feelings of closeness are correlated, and yet only the younger siblings experience less rivalry if the dyad has a similar view about closeness.

A comparison of the utilized methods to illuminate sibling rivalry and closeness reveals the complexity of these constructs. Some light has been shed on the picture of rivalry and closeness first, by including information from both siblings and second, by utilizing different statistical analyses to interpret the data.

Limitations of the Study and Suggestions for Further Research

This study was certainly worthwhile because it was a first way to consider feelings of siblings from both sides of the sibling dyad. Especially how sibling agreement was measured is an improvement to earlier studies (Daniels et al., 1985). Some limitations do exist, because this was a small-scale study. The study is based on a relatively small sample size of 78 sibling pairs. For some analyses of variance, the cell sizes became small and probably prevented expected effects to turn out to be statistically significant. Also, when only those sibling pairs were under investigation with an extreme high or low level of agreement, the results are tentative since only eleven and twelve pairs could be included in the analyses. The same analyses based on a larger sample size therefore could verify the results of this study.

The specific intention in this study was to concentrate only on those sibling pairs that were nearest-in-age to each other. Therefore, the findings cannot be perceived as indicators of sibling relationships in general. Especially the question about age-spacing could be addressed better by a study with a different design. It would be worthwhile in further studies to let the respondents report about their relationship to all their siblings. This way several sibling relationships inside the family could be compared. However this would be complex as families are of different sizes. As reported in the sample description of this study (see page 41), most families had two children. Thus, families with only one sibling dyad are the most common configurations in the population and therefore, a focus on them could be justified.

The study addressed only sibling pairs in late adolescence. Most respondents (85%) were between 18 and 23 years of age. Only this particular point in time was captured in the adolescents' lives. Longitudinal studies starting in early adolescence and ending in late adolescence could reveal patterns of change and stability in the sibling relationship during the whole phase of adolescence.

The chosen sample included only college students and their siblings. It is assumed that in this sample the part of the population with a socioeconomic status above average is overrepresented. Further, only intact families were included in the study. Inside these limitations however, the undergraduate classes that were selected for the data collection comprised a variety of students from different scientific fields on campus. As long as one

argues that different types of students are majoring in different academic fields, this variety of students was captured in the sample. In sum, the composition of the sample is considered to have limitations that do not allow to generalize the findings beyond the typical intact middle class family. The same study conducted outside the university setting would increase the generalizability of the findings.

Finally, it was the researcher's impression that the way how the data were collected might have led to a natural selection process among the participants. It was probably the case that young people who answered the questionnaire were more concerned about their relationship to the sibling nearest in age than were potential participants who declined to be involved in the study. This selection operated more strongly for the sibling who had to mail in the questionnaire. The sibling pairs in this study may not have been representative of all siblings and yet, as the study shows, there was variability in how the sibling pairs' expressed feelings were. Perhaps finding siblings who are geographically close to each other could make the delivery of the questionnaire easier and increase the participation.

Despite the limitations the study offers valuable insight in the sibling subsystem. Knowing that feelings of closeness and rivalry can change over the lifespan, the snapshot of the sibling relationship in late adolescence demonstrates the unique configuration of the sibling subsystem during this particular time. Being the older versus the younger sibling makes a difference in how siblings experience rivalry

and closeness. Agreement between the siblings seemed to help both siblings in lowering their negative feelings and increasing their positive feelings about their relationship. Agreement about the two fundamental feelings of rivalry and closeness may indicate a clear mutual understanding about the nature of the relationship. Literature has indicated that clear rules and boundaries around a system promote harmony inside this system (Broderick & Smith, 1979; Kantor & Lehr, 1975). With a shared perspective of the relationship, regardless of the absolute level of rivalry and closeness, the sibling relationship is fostered.

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APPENDICES

APPENDIX A

RIVALRY SCALE

How do you feel toward your sibling? Circle the number that describes
your feelings.

92. very competitive	1___2___3___4___5	not competitive
93. not jealous	1___2___3___4___5	very jealous
94. very rivalrous	1___2___3___4___5	not rivalrous
95. not envious	1___2___3___4___5	very envious
96. in contention	1___2___3___4___5	not in contention
97. not in opposition	1___2___3___4___5	in opposition
98. very clashing	1___2___3___4___5	not clashing
99. not frustrating	1___2___3___4___5	very frustrating
100. very interfering	1___2___3___4___5	cooperative
101. harmonious	1___2___3___4___5	full of conflict
102. very mistrusting	1___2___3___4___5	trusting
103. not suspicious at all	1___2___3___4___5	very suspicious
104. very begrudging	1___2___3___4___5	not begrudging
105. not vengeful at all	1___2___3___4___5	vengeful

CLOSENESS SCALE

Please indicate your feelings toward the target sibling using the following scale. Record your answer from 1-7 in the spaces provided on the left.

                    not at all   very much
                    1----2----3----4----5----6----7

_____66. How much do you feel that you are close to your sibling?

_____67. How much do you feel that your views on life are similar to those of your sibling?

_____68. How much do you feel that you are understood by your sibling?

_____69. How much do you feel friendly and relaxed when you are with your sibling?

_____70. How much do you feel that you can turn to your sibling when you are in need of help or guidance?

_____71. How much do you feel that you can discuss your work, school, and activities with your sibling?

_____72. How much do you feel that your ideas and views are respected by your sibling?

_____73. How much do you feel that you are told what to do by your sibling?

_____74. How much do you feel that you are protected against difficulties and dangers by your sibling?

_____75. How much do you feel that you are inspired by your sibling to develop your abilities?

COMPETITION SCALE

How much competition do you and your target sibling feel in the following areas? Circle the number that describes your feelings.

		none	little	some	very much
76.	school achievement	1	2	3	4
77.	physical attractiveness	1	2	3	4
78.	parental approval	1	2	3	4
79.	dating and love life	1	2	3	4
80.	athletic performance	1	2	3	4
81.	higher intelligence	1	2	3	4
82.	financial achievement	1	2	3	4
83.	parental favoritism	1	2	3	4
84.	peer popularity	1	2	3	4

SIMILARITY SCALE

Using the following scale, rate how similar you and your target sibling are in the following areas. As before, record your answer from 1-7 in the space provided on the left.

    Not at all similar   very much
similar
        1---------2----------3----------4----------5----------6-------7

_____34. personality

_____35. leisure interests

_____36. political opinion

_____37. future goals

_____38. religion

_____39. values

FREQUENCY OF CONTACT SCALE

52. In the last month, how often have you been in contact with your target sibling? You can include being together, talking on the phone, and exchanging letters.

    1) once a day or more
    2) about every other day
    3) about twice a week
    4) about once a week
    5) about once every two weeks
    6) about once a month
    7) once during the past two months
    8) no contact in the last month

How often do you engage in each of the following types of contact with your sibling?

53. How often do you talk on the phone?
    1) once a day or more
    2) about every other day
    3) about twice a week
    4) about once a week
    5) about once every two weeks
    6) about once a month
    7) once during the past two months
    8) no contact in the last month

54. How often do you write letters?
    1) once a day or more
    2) about every other day
    3) about twice a week
    4) about once a week
    5) about once every two weeks
    6) about once a month
    7) once during the past two months
    8) no contact in the last month

55. How often do you visit just your sibling?
           1) once a day or more
           2) about every other day
           3) about twice a week
           4) about once a week
           5) about once every two weeks
           6) about once a month
           7) once during the past two months
           8) no contact in the last month

56. How often do you visit sibling and rest of family?
           1) once a day or more
           2) about every other day
           3) about twice a week
           4) about once a week
           5) about once every two weeks
           6) about once a month
           7) once during the past two months
           8) no contact in the last month

57. How often do you go out socially with sibling (for example, go
     to bars, do sports activities)?
           1) once a day or more
           2) about every other day
           3) about twice a week
           4) about once a week
           5) about once every two weeks
           6) about once a month
           7) once during the past two months
           8) no contact in the last month

No._____

SIBLING QUESTIONNAIRE

This questionnaire addresses your relationship with your siblings and other family members. All the information you complete will be kept confidential. You have been assigned a number so that your name will not be attached to the questionnaire. Some of the questions which follow may seen very personal. Feel free to skip any questions you do not wish to answer. Please circle the numbers that correspond to your answer for each question. Choose the one best answer for each question - there is no right or wrong response.

1. How old are you?
   1) younger than 18   2) 18-19   3) 20-21   4) 22-23
   5) 24 & older

2. What is your sex?
   1) male   2) female

3. How many brothers and sisters as a total do you have?
   1) 0   2) 1   3) 2   4) 3   5) 4   6) 5 or more

4. Are you married?
   1) yes   2) no

5. How many children do you have?
   1) 0   2) 1   3) 2   4) 3   5) 4 or more

6. Do you think having a brother/sister is better than being an
   only child?
   1) yes   2) no

Below we have constructed a diagram of your family based on the information your sibling at OSU gave us. Your position in the family and the position of your brother or sister at OSU is marked in red. Please consider this brother or sister when answering the following questions. This sibling will be referred to as your "target sibling."

Your brother/sister at OSU who filled out this questionnaire earlier identified you as the sibling closest in age to him/her. Please circle your name and that sibling's name in the diagram above. Consider that sibling when answering the following questions. This sibling will be referred as your "target sibling."

7. Is this sibling older or younger than you?
    1) younger than me
    2) older than me
    3) we are twins

8. How much age difference there is between you and your sibling?
    1) less than a year   2) 1-2 years   3) 2-3 years   4) 3-4 years
    5) 4-5 years   6) 5-6 years   7) 6 and more years

9. What is his/her sex?
    1) male   2) female

10. Is she/he married?
    1) yes   2) no

11. How many children does he/she have?
    1) 0   2) 1   3) 2   4) 3   5) 4 and more

12. Are your parents still married?
    1) yes   2) no

If your answer is yes, skip question #13 and go to question #14.

13. How did your parents marriage end?
    1) death of one spouse   2) divorce   3) separation

14. How long did you and the target sibling grow up in the same home
    together during your childhood and adolescence?
    1) up to age 18   2) up to age 16   3) up to age 14
    4) up to age 12   5) not consistently
    6) did not grow up together

15. How far away does the target sibling live from you?
    1) in the same house   2) within 30 minutes drive
    3) one or two hours drive   4) three to five hours drive
    5) more than 5 hours drive

16. Do you live with your parent(s)?
    1) yes   2) no

17. Does your sibling live with your parent(s)?
    1) yes   2) no

What were your parent(s) expectations regarding the following areas toward you and your target sibling? Circle the number that describes your feelings.

		they expected more from me	they expected equal	they expected more from my sibling
18.	high school achievement	1-------------2-------------3		
19.	athletic activity	1------------2-------------3		
20.	high intelligence	1------------2-------------3		
21.	high financial achievement	1------------2-------------3		
22.	popularity among peers	1------------2-------------3		

How did your parent(s) act toward you and your sibling regarding following? Please circle the number.

		more with me	equal	more with sibling
23.	parents tended to approve what you do	1-------------2---------------3		
24.	parents did things with you or your sibling	1-------------2---------------3		
25.	parents gave more credit	1-------------2---------------3		
26.	parents were lenient toward mistakes	1-------------2---------------3		
27.	parents asked for suggestions or advice	1-------------2---------------3		

Use the following scale, please indicate your answer. Record your answer from 1-5 in the space provided on the left.

not at all   very much
    1---------------2---------------3-------------4---------------5

_____28. Do you think your parent(s) used you as a good model to others?

_____29. Do you think your parent(s) expressed pride in you?

_____30. Do you think your parent(s) compared you and your closest sibling's performance? (for example, in school or in sports)

_____31. Do you think your parent(s) used your sibling as a good model to others?

_____32. Do you think your parent(s) expressed pride in your sibling?

_____33. Do you think your parent(s) encouraged competitive games between you and sibling?

Using the following scale, rate how similar you and your target sibling are in the following areas. As before, record your answer from 1-7 in the space provided on the left.

     Not at all similar   very much
similar
         1---------2----------3----------4----------5----------6-------7

_____34. personality

_____35. leisure interests

_____36. political opinion

_____37. future goals

_____38. religion

_____39. values

What did you and your sibling share in the past?

40.	shared rooms	1) Yes	2) No
41.	shared clothes	1) Yes	2) No
42.	shared friends	1) Yes	2) No
43.	borrowed and lent money to each other	1) Yes	2) No
44.	shared responsibility for the family work	1) Yes	2) No
45.	shared hobbies	1) Yes	2) No
46.	shared the same occupational goals for the future	1) Yes	2) No

---

47. Considering the amount of time you spend with your sibling now, how much more time would you like to spend in the future? Circle the number.

         quite a   somewhat   same as   somewhat   quite a
         bit less   less   now   more   bit more
            1-----------2-----------3-----------4---------------5

In what ways would you like to change your relationship with your
target sibling? Circle the number that describes your feelings.

	prefer much less	prefer the way it is	prefer much more

48. how close you are   1-----2-----3-----4-----5-----6-----7

49. how much you see each
     other   1-----2-----3-----4-----5-----6-----7

50. how much competition you
     feel   1-----2-----3-----4-----5-----6-----7

51. How satisfied are you with your present relationship with your
     sibling? Circle the number.

            very much dissatisfied   very much satisfied
                 1-----2-----3-----4------5-----6

52. In the last month, how often have you been in contact with your
     target sibling? You can include being together talking on the
     phone, and exchanging letters.

                   1) once a day or more
                   2) about every other day
                   3) about twice a week
                   4) about once a week
                   5) about once every two weeks
                   6) about once a month
                   7) once during the past two months
                   8) no contact in the last month

**How often do you engage in each of the following types of contact with
your sibling?**

53. How often do you talk on the phone?
                   1) once a day or more
                   2) about every other day
                   3) about twice a week
                   4) about once a week
                   5) about once every two weeks
                   6) about once a month
                   7) once during the past two months
                   8) no contact in the last month

54. How often do you write letters?
                   1) once a day or more
                   2) about every other day
                   3) about twice a week
                   4) about once a week
                   5) about once every two weeks
                   6) about once a month
                   7) once during the past two months

55. How often do you visit just your sibling?
    1) once a day or more
    2) about every other day
    3) about twice a week
    4) about once a week
    5) about once every two weeks
    6) about once a month
    7) once during the past two months
    8) no contact in the last month

56. How often do you visit sibling and rest of family?
    1) once a day or more
    2) about every other day
    3) about twice a week
    4) about once a week
    5) about once every two weeks
    6) about once a month
    7) once during the past two months
    8) no contact in the last month

57. How often do you go out socially with sibling (for example, go to bars, do sports activities)?
    1) once a day or more
    2) about every other day
    3) about twice a week
    4) about once a week
    5) about once every two weeks
    6) about once a month
    7) once during the past two months
    8) no contact in the last month

What do you and your sibling share right now?

58.	borrowing and lending money for school	1) Yes	2) No
59.	borrowing and lending money for a car	1) Yes	2) No
60.	sharing a car	1) Yes	2) No
61.	sharing clothes	1) Yes	2) No
62.	sharing friends	1) Yes	2) No
63.	sharing hobbies	1) Yes	2) No
64.	sharing responsibility for family work	1) Yes	2) No
65.	sharing vacation together	1) Yes	2) No

Please indicate your feelings toward the target sibling using the following scale. Record your answer from 1-7 in the spaces provided on the left.

```
                 not at all                    very much
                 1----2----3----4----5----6----7
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_____66. How much do you feel that you are close to your sibling?

_____67. How much do you feel that your views on life are similar to those of your sibling?

_____68. How much do you feel that you are understood by your sibling?

_____69. How much do you feel friendly and relaxed when you are with your sibling?

_____70. How much do you feel that you can turn to your sibling when you are in need of help or guidance?

_____71. How much do you feel that you can discuss your work, school, and activities with your sibling?

_____72. How much do you feel that your ideas and views are respected by your sibling?

_____73. How much do you feel that you are told what to do by your sibling?

_____74. How much do you feel that you are protected against difficulties and dangers by your sibling?

_____75. How much do you feel that you are inspired by your sibling to develop your abilities?

How much competition do you and your target sibling feel in the following areas? Circle the number that describes your feelings.

		none	little	some	very much
76.	school achievement	1---------2---------3---------4			
77.	physical attractiveness	1---------2---------3---------4			
78.	parental approval	1---------2---------3---------4			
79.	dating and love life	1---------2---------3---------4			
80.	athletic performance	1---------2---------3---------4			
81.	higher intelligence	1---------2---------3---------4			
82.	financial achievement	1---------2---------3---------4			
83.	parental favoritism	1---------2---------3---------4			
84.	peer popularity	1---------2---------3---------4			

How much do you utilize the following methods in competitive situations with your sibling?

		don't use at all	used a few times	used a a lot
85.	I ignored the situation	1_____	2_____	3_____
86.	I talked to another person	1_____	2_____	3_____
87.	I blamed the other sibling for conflict	1_____	2_____	3_____
88.	We fought about it	1_____	2_____	3_____
89.	I made an effort to keep my distance from the sibling	1_____	2_____	3_____
90.	I bragged about my accomplishments	1_____	2_____	3_____
91.	I tried to be good at something the sibling is not good at	1_____	2_____	3_____

How do you feel toward your sibling? Circle the number that describes your feelings.

92.	very competitive	1___2___3___4___5	not competitive
93.	not jealous	1___2___3___4___5	very jealous
94.	very rivalrous	1___2___3___4___5	not rivalrous
95.	not envious	1___2___3___4___5	very envious
96.	in contention	1___2___3___4___5	not in contention
97.	not in opposition	1___2___3___4___5	in opposition
98.	very clashing	1___2___3___4___5	not clashing
99.	not frustrating	1___2___3___4___5	very frustrating
100.	very interfering	1___2___3___4___5	cooperative
101.	harmonious	1___2___3___4___5	full of conflict
102.	very mistrusting	1___2___3___4___5	trusting
103.	not suspicious at all	1___2___3___4___5	very suspicious
104.	very begrudging	1___2___3___4___5	not begrudging
105.	not vengeful at all	1___2___3___4___5	vengeful

106. Who is the person you feel most close to in your family?
   1) target sibling   2) other sisters
   3) other brothers   4) mother
   5) father

107. Every family experiences some competition. Who do you feel the
   <u>most</u> rivalry within your family?
   1) target sibling   2) other sisters   3) other brothers

108. Compared to the past, how do you feel now toward your target
   sibling?

   1------------------------------2----------------------------3
   feel more close   the same   feel more distant

109. Compared to the past, how much do you feel rivalrous now toward
   your target sibling?

   1------------------------------2----------------------------3
   feel more rivalrous   the same   feel less rivalrous

Thank you for taking the time to complete our questionnaire. Please
return it to us in the envelope provided. The postage has already
been prepaid. Thank you again.