CLOSE RELATIONSHIP PATHS: THE ROLE OF EQUITY AND MAINTENANCE IN SATISFACTION FOR FEMALE SIBLINGS AND FRIENDS

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BA, University of British Columbia, 1999

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

THE FACULTY OF GRADUATE STUDIES

School of Social Work and Family Studies

Family Studies

We accept this thesis as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

April, 2002

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Date April 26, 2002
Abstract

Emerging adulthood is a time when close relationships are extremely important, particularly to women. In this study, young women's close relationships with sisters and female friends were examined in order to determine if relationship type effects relationship processes. Past research reveals that two variables are typically positively correlated with relationship satisfaction - equity and relationship maintenance. It was expected that these correlations would be significantly stronger for close friendships than for close sibling relationships. These differences were predicted because friendships are voluntary, and tend to be less communal and shorter in duration than sibling relationships. Statistical procedures showed that while the two relationship types do vary in the latter three ways, they do not differ significantly in terms of equity, maintenance, or satisfaction.
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Acknowledgements

I thank my brothers, Erik and Bradley, for inspiring my interest in the sibling relationship and being such great brothers. I appreciate all of Jamie Wood’s kind advice throughout this process. I recognize Dr. Dan Perlman for his patience and commitment to my progress. This thesis is dedicated to Lisa Ravenstein.
Most meaningful moments during emerging adulthood are shared with friends and family. Young women have an assortment of parents, siblings, friends, aunts, and so forth, who they can share the good times with and who they can turn to for help during times of need. Even though these close relationships are quite significant in people's lives, they are often taken for granted.

What are close relationships? Kelley et al. (1983) have defined close relationships as those where the participants like one another, interact frequently, know each other well, and have an impact on each other's lives. These relationships are especially important to women (Brehm, Miller, Perlman, & Campbell, 2002).

While the average individual may not expend a lot of energy reflecting on these close relationships, this is not the case with social scientists. Researchers closely scrutinize many of these relationships (e.g. romantic relationships, Cramer, 2000; or co-worker relationships, Nielsen, Jex, & Adams, 2000; Shah, 2000). However, not all types of close relationships have garnered the same amount of academic attention. This study will focus on two types of relationships that are among those that have been less examined - close relationships between female siblings and female friends.

The current study is limited to women's relationships for a number of practical and theoretical reasons. First, by including only one gender, the complexity of the study is minimized, which allows for a sharper focus on the remaining variables. Second, the sampling frame of young people available to participate in this study was predominantly female. Third, stereotypes about the differences between male and female relationships suggest that women are more expressive and relationship oriented than men (Lips, 1993). Further, women communicate about relationships more than men do (Acitelli, 1992).

In sum, not only were women more available to the researcher, but from a theoretical
standpoint, women are also expected to be more concerned with their relationships and thus, to have closer, more intimate relationships. Whether this is true is debatable, but it seems that women would be more likely to participate in research that calls for them to communicate about a close relationship. Not only is this study of close relationships limited to a specific gender, but also to a specific period of the lifespan, emerging adulthood.

**Emerging Adulthood**

The close relationships between women during the stage of emerging adulthood are of interest in this study. Emerging adulthood is a term that refers to the period of time between the ages of eighteen and twenty-five (Arnett, 2000). Emerging adults are generally not dependent on their parents however they are still relatively free of most responsibilities. The growth in the amount of people who attend post-secondary schooling has contributed to this sort of extension of youth.

Many reasons exist for close relationships specifically during emerging adulthood to be scrutinized. Belonging to this demographic group will have a unique impact on relationships between both siblings and friends. Exploration of these effects is a goal of this study. While emerging adults are similar to adolescents in some ways, and similar to adults in others, they are neither and should be considered separately. Close relationships during emerging adulthood differ from close relationships during adolescence and adulthood. One aspect of close relationships unique to emerging adulthood is the priority that is accorded them. Relationships with peers are highly salient to emerging adults (Arnett, 2000). This in itself is not unique, as peer relationships are also important during adolescence (Aldous, 1996; Stocker & Dunn, 1994). The duties of adulthood have yet to be fully assumed and this demographic is freer of responsibility than adults; thus focus can continue to be directed towards relationships. But, while the priority of close relationships continues to be high to
emerging adults, there is probably more perspective at this age than there is likely to have
been during adolescence; as emerging adults are more mature than adolescents these close
relationships should be more sophisticated. During this time then, emerging adults are likely
to assign a high priority to their close relationships but not such that it is their exclusive
concern.

The second aspect that is of interest when emerging adulthood is considered
cconcerns the focus on family compared to friends. Close relationships are probably
important to people during all stages of life however certain types of close relationships take
precedence over others and this varies according to developmental stage (Dwyer, 2000).

There are expected shifts that occur during adolescence and adulthood. At the onset of
adolescence it has typically been assumed that people draw away from family and shift their
focus from their parents to their peer groups (Aldous, 1996; Stocker & Dunn, 1994). This
would mean that the sibling relationship is likely to become relatively unimportant while
friendships become increasingly critical. Later on during adulthood, relationships with
family rise in importance (Aldous, 1996). It is likely that a unique aspect of emerging
adulthood is that it is a period of balance between the significance of these two relationships.
Rather than one type of relationship seeming more prominent, such as it is during
adolescence or adulthood, both types of close relationships are accorded an equal degree of
importance.

These two differences make this an interesting time of the lifespan to consider close
relationships. This portion of the lifespan per se has not been neglected in previous
research, but close relationships during this time need to be focused upon and analyzed to a
greater extent. It is predicted that this will happen as there is a great deal of interest in this
time and research on emerging adults is increasing (Arnett, 2000) and also since close
relationships are consistently of interest to scholars. This study can contribute to an expansion of this type of knowledge.

This study will focus on women’s close relationships during emerging adulthood. This study is limited to both a certain gender and a specific time of the lifespan but also to a focus on two specific types of close relationships- those between female siblings and those between female friends.

**Siblingship**

There are various possible definitions of the term sibling. For example, a sibling is defined as, "One of two or more persons having one common parent", in *Webster's 7th New Collegiate Dictionary* (1971). This definition is very simple, but it is also ambiguous. There are several possible ways to construe how a common parent is defined. A parent might be shared either by blood, marriage or adoption. Different researchers have chosen different definitions of a common parent. Some research utilizes a strict definition of sibling; two individuals related by blood with the same parents (Cicirelli, 1991). But, it is also possible for definitions to include adopted siblings, half-siblings, stepsiblings, and fictive kin. Some researchers have not specified how siblingship was defined in their research (Seginer, 1992).

In this study, a sibling is defined as persons with a common parent by blood, adoption or marriage. Adopted siblings, half-siblings, and stepsiblings are included. This is a wider definition of sibling that is more inclusive of non-traditional family forms. The sibling relationship is a fundamental relationship with unique features (See Bank & Kahn, 1982; Bedford, 1989; Cicirelli, 1991; Lamb & Sutton-Smith, 1982).

Features that distinguish the sibling relationships as special are first, a high likelihood of a shared genetic heritage (Scarr & Grajek, 1982; Stocker & Dunn, 1994).
Second, this relationship is usually long-term with a rich shared history (Cicirelli, 1991). Third, most societies consider the role of brother and sister particularly significant (Bank & Kahn, 1982). The significance of this relationship can be inferred from the attention directed towards it. As Pfouts (1976, as cited in Bedford, 1989, p.8) notes, "Since the beginning of history, [this] popular interest in sibling interaction has been reflected in fables, fairy tales, biblical accounts, plays, and novels that vividly portray the characteristic sibling themes of power struggles, rivalry, solidarity, and ambivalence."

Gender does have an impact on sibling relationships. It is typically expected and has been shown that women will be closer to their siblings than men are (Matthews, Delaney, & Adamek, 1989). Dyads of sisters are expected to be closest, followed by mixed gender dyads, while pairs of brothers are expected to be the least close. Furman and Buhrmester (1985) have also reported that generally same gender siblings are closer than siblings whose genders are different and, Cicirelli (1982) has found that sisters in middle and old age are closer compared to brothers. Similarly Gold (1989) has shown that sibling pairs that include at least one or more female member tend to be more positive and more involved.

Research about the sibling relationship was minimal for a period of years but there is now a significant body of scholarship directed at understanding this relationship (Bedford, 1989). A grand theory has not been adopted; instead, the focus of work in this field is eclectic (Cicirelli, 1991). Researchers base their analyses of siblings on an assortment of traditions. Attachment theory (Cicirelli, 1989; Brussoni, 2000), Freudian theory (Bank & Kahn, 1982), and family development (Aldous, 1996) are among the numerous viewpoints that have contributed to sibling scholarship. Many diverse aspects of the sibling relationship have been explored. For example, studies have focused on topics such as: identifying typologies (Gold, 1989), birth order issues (Gecas & Pasley, 1983), attachment between
siblings (Brussoni, 2000) and advice giving (Seginer, 1992).

Examination of the sibling relationship over the lifespan has been skewed; an uneven focus has been directed at certain age groups. Portions of the lifespan have been examined rather than the entirety (Leigh, 1982). In regard to siblings, emerging adulthood has, for the most part, been particularly neglected as a focus of study (Cicirelli, 1995). Attention has instead been directed mostly at siblings in certain periods of the lifespan such as old age (e.g., Cicirelli, Coward, & Dwrey, 1992; Connidis, 1989a; Hays, Gold, & Pieper, 1997; Suggs, 1985) or childhood (e.g., Dunn, 1992).

Friendship

Fehr (1996) defines friendship as a "voluntary, personal relationship, typically providing intimacy and assistance [where] the two parties like one another and seek each other's company" (p.20). Individuals choose who their friends are and how to include friends in their lives. Friendship is difficult to define precisely. Most people would include similar features in their descriptions of friendships but it is highly unlikely that it would be possible to find consensus on an exact definition (Fehr, 1996). There is much variety in friendship.

Friendship can be viewed as multidimensional; friends meet many needs and are often involved in many aspects of each other's lives. For instance, de Vries (1996) has proposed three broad dimensions that compose the friendship relationship. These are the affective, communal, and sociable dimensions. The affective component refers to feelings of intimacy and affection both towards friends, and also received from them. The communal component refers to sharing of activities and interests. The sociable component is a reference to the enjoyment that comes from friendships.

Gender shapes friendships. Friendships between women are more likely to focus on
emotional sharing while male friendships are more likely to focus on activity sharing (Brehm et al., 2002; Fehr, 1996). Wright (1982) described this disparate tendency by stating that friendships between women are face to face whereas friendships between men are side by side.

There is strong and varied interest in this type of relationship; friendship has been reflected upon throughout history; many writers, philosophers, and musicians have offered their interpretations of this relationship (Brehm et al., 2002). Scholars from psychology, sociology, and philosophy have all examined friendship (Dickens & Perlman, 1981). Many diverse avenues of investigation have been pursued. For example, research has been directed towards definition of this relationship (LaGaipa, 1987), consideration of typologies (Rose & Serafica, 1986) and developmental or life cycle issues (Rubin, 1980).

Examination of friendship seems to be focused over the lifespan more evenly than examination of siblingship. Specifically regarding emerging adulthood, compared to sibling relationships, friendship relationships during this time have been analyzed to a greater extent (see Collins & Laursen, 2000; Fehr, 1996; Furman & Buhrmester, 1992).

Siblingship and Friendship

The initial question that prompted this investigation was, does satisfaction in a relationship vary depending upon whether it is a relationship between siblings or friends? This question stemmed from considering, “If a best friend and a sibling behaved in the exact same way would satisfaction be the same or different?” If a woman’s sister and a close female friend behave in similar ways do their actions have the same consequences?

Satisfaction in close relationships has been examined previously and various conclusions have been drawn. One generally accepted rule is that for relationships to flourish, they must be nurtured and maintained (Canary & Stafford, 1994). In this study two
constructs linked with satisfaction will be explored: equity and maintenance. Several researchers have shown a strong connection between satisfaction and these two constructs. Specifically, the work of Canary and Stafford and colleagues (Canary & Stafford 1992; Canary & Stafford, 1994; Canary & Stafford, 2001; Canary, Stafford, Hause & Wallace, 1993) has shown that equity is associated with maintenance of relationships, and maintenance is associated with satisfaction.

Canary and Stafford (1994) suggest that relationship maintenance (behavior to keep a relationship in working order) is a way of attaining a desirable and satisfying relationship. There are four key propositions associated with relationship maintenance that will be central to the present study:

1. "All relationships require maintenance or else they deteriorate" (p.7).
2. Maintenance behaviors may be used in isolation or in combination with other maintenance behaviors to variously affect the nature of the relationship.
3. Maintenance activities vary according to the development and type of the relationship.
4. People are more motivated to maintain equitable relationships than inequitable relationships.

In this study these four propositions will be examined with two specific types of close relationships in mind.

It has been demonstrated that equity and maintenance are associated with satisfaction in various sorts of close relationships (e.g. married couples, Canary & Stafford, 1992; or romantic couples, Canary & Stafford, 2001). In this study, two types of close relationships where this association has not been explored to a great extent are of interest - siblingship and friendship. The question to be answered is, "Do previous findings about satisfying close
relationships apply to female siblings and friends?" It is expected that the operation of satisfaction will not be the same; while there may not be a great difference there will be some degree of difference. It is predicted that the four propositions will not apply equally to siblings and friends. The propositions are expected to apply to female friends but not to female siblings.

In order to compare these two types of close relationships the case must be made that they differ. Why is it expected that siblings and friends differ and how is it that they differ?

**Three Differences Between Siblingship and Friendship**

How does the sibling relationship compare with friendship? There are numerous similarities. These relationships both commonly involve age peers, activities one engages in with a friend or a sibling may be similar, and the relationship between siblings may be in many ways somewhat similar to those with friends. However, although these relationships share common features they are not equivalent.

The distinction between friends and siblings is not made in order to demonstrate the superiority of one relationship type over the other. Both types of relationship have value. Whether a relationship is one between friends as opposed to between siblings is not expected to influence the importance of the relationship but the distinction is instead pursued in order to examine differences in the relationships' processes. Both relationship types can be highly rewarding and satisfying but it is hypothesized that the paths to this positive outcome will vary as a consequence of their differences.

**Length of relationship.** Typically siblings are close in age and are raised together (Aldous, 1996). They have a relationship with each other from the time the younger sibling is born. On the other hand, few people have known their friends from birth. There are exceptions; for instance, stepsiblings probably have not known each other from the time
they were born, or friends may have mothers who knew each other when they were pregnant. Generally, though, siblings will have a greater shared history. Thus, HI - The length of time participants will report having known each other will vary significantly between the two types of relationships. Relationships between siblings will span a greater length of time than the relationships between friends.

**Communal orientation.** A strong communal orientation occurs when those in a relationship give benefits to each other when the other has a need or simply to demonstrate their concern for the other without requiring any sort of return (Mills & Clark, 2001). This sort of selflessness varies in strength. In strong communal relationships there is both a high degree of motivation to be responsive and also a willingness to incur great costs for the benefit of the other. In weak communal relationships behavior is somewhat similar but slightly less generous. People in communal relationships follow a different norm when thinking about giving or receiving benefits compared to those in exchange oriented relationships (Clark & Mills, 1993).

There are expectations regarding what sorts of relationships will be strongly communal. The average person would agree it is not appropriate to have a strong communal orientation towards a stranger; it would be considered unusual and likely excessive. Instead, this sort of orientation is usually reserved for family members, romantic partners and close friends (Clark & Mills, 1993). In fact, in close, intimate relationships a strong communal orientation is expected.

It is a cultural norm that close relationships follow the communal rule (Clark & Mills, 1993). Since this expectation exists, it will be satisfying to conform by behaving in a communal manner. Following the expectations of this norm can be fulfilling.

There seems to be a different norm about siblings as compared to friends. Siblings
are expected to take care of each other more so than friends are. The saying “blood is thicker than water,” suggests that there is a norm that family has priority; siblings should be considered before friends.

Most people have several communal relationships. As these relationships vary in strength certain relationships will take priority over others. Clark and Mills (1993) describe the relationship between a child and caregiver as "the clearest example of a communal relationship" (p. 685). Mills and Clark (2001) also predict that a romantic relationship would take precedence over a relationship with a friend or a sibling. A sliding scale of communal relationships exists. Although it has yet to be demonstrated, it seems likely that siblings should be more strongly communally oriented than friends; it is reasonable to suggest this is so. The sibling relationship is a close personal relationship with a longer shared history than most friendships. As well, there is an expectation regarding what is “right” behavior between siblings. In fact, these expectations or cultural norms dictate that there be a strong communal orientation. Expectations are less for friendships. The prediction that siblings will be more communally oriented as compared to friends is reasonable considering these points. Thus,

**H2- Participants will vary in their communal orientation depending upon relationship type; siblings will be more communally oriented than friends.**

**Choice.** The fundamental difference between siblingship and friendship is the role of fate or choice. As Delilles stated, "Fate chooses your relations, you choose your friends."

Siblingship is ascribed; it is not a choice. The opposite is true of friendship. As noted previously, friendship is defined as a "*voluntary*, personal relationship" (Fehr, 1996, p. 7).

Fehr’s (1996) definition of friendships may apply to many relationships between siblings. It is true some sisters do get along very well and spend as much or more time with
each other than with their friends; there is a folk saying, "Siblings by chance, friends by choice" that is used to describe these sorts of pairs. However while many siblings are like friends there are also many siblings who are the opposite. These siblings see each other rarely, often only for special occasions. While one can select the amount of time spent with one’s sister, one cannot choose whether or not they have a sister and who that sister will be.

Friends are able to make a decision about the amount of time that they spend with each other, but, more importantly, they can decide to have a friend and who that friend will be. Just as friends can easily choose to be with each other they may just as easily choose to not be with each other. Fehr (1996) notes that there are minimal external structures that perpetuate friendship. This lack of structure means that people have great freedom in friendships. But it may mean that there are few constraints that prevent friendships from ending outside of the behavior of those in the relationship. It seems that friends must be more active in order to continue their relationship. Choice means both freedom but also responsibility.

How does the distinction between fate, or choice, change relationships? This key difference between the sibling relationship and friendship is a clear difference and it is expected to be significant to the extent that friends and siblings will be considered not equivalent in this research. It is predicted that as a consequence of this difference relationship processes will be affected.

The Impact of Relationship Type

It is not difficult to identify what it is that makes the sibling relationship and friendship different from each other: one relationship involves a longer history than the other; one relationship is more communal than the other; and one relationship is voluntary, while the other is not. However, there is less clarity regarding how these characteristics
relate to relationship processes. Siblings are different from friends. Free will, or choice, is not an element in the formation of sibling relationships. Siblings are also expected to be more communally oriented and have a long shared history. Since how we come to our friends and our family, how we are expected to act with them and how we sustain relationships with them could not be more disparate it is probable that behavioral processes, and the results, in these relationships will differ.

When the sibling relationship and friendship are compared it has been shown that the properties of relationships differ depending upon whether they involve siblings and friends. Not only are the properties and outcomes of different kinds of relationships different, but also the association between relationship properties can differ according to the type of relationship. In essence, relationship type impacts how a relationship works. Looking solely at mean differences between siblings and friendships would tell only a portion of the story. Thus, an examination of the dynamics of close relationships (i.e., associations between variables) as a function of relationship type will make it possible to more fully understand the role of relationship type.

Most investigations of relational maintenance have been conducted upon relationships that are voluntary. Previous investigations of equity, where equity was reported to have an impact on maintenance and satisfaction, also examined voluntary relationships. Voluntary relationships involve choice in that there is an initial state of development and there is a possibility of dissolution. If people are unhappy with a relationship they may choose to sever it; it may be incredibly difficult or awkward, but it is a possibility.

This is not true of involuntary relationships. It is not possible to choose to acquire such a relationship - these are ascribed. It is equally difficult to rid oneself of an involuntary
relationship. Lack of choice is the defining quality of involuntary relationships. Involuntary relationships must also be analyzed to understand how this difference impacts maintenance processes.

The connection between equity and maintenance, and the subsequent impact on relationship satisfaction is well established (Caanary, 2001). However these conclusions may be drawn from a paradigm that applies to voluntary relationships exclusively. In fact, this paradigm may be completely irrelevant to one of the relationship types of interest in this study, the sibling relationship. When the key differences are considered the sibling relationship may be exceptional. There are features and qualities of the sibling relationship that make it distinct from other sorts of relationships. It may be that upon examination, the logic that leads to an expectation of the correlation between equity and maintenance will seem illogical and unwarranted when attention is directed towards the sibling relationship specifically. Maintenance processes may be different in the sibling relationship since the relationship between siblings is so different from the relationship between friends. Maintenance may not even be necessary for siblings. Understanding relational maintenance is important since the majority of time in a relationship involves maintaining a relationship not initiation or termination (Duck, 1994).

In order to determine if siblings are exempt from the rules of maintenance, they must be compared to a group where maintenance applies and be shown to differ significantly. In this study, the argument for exception from these rules is made because of the three key ways that siblingship in emerging adulthood is unique from other relationships. If sibling relationships are compared to a type of relationship that is very similar except for those three key differences a stronger case can be demonstrated.

While friends are different from siblings there are some similarities between these
two types of relationships. Friends are often age peers (Bell, 1981). The activities a person shares with their friends are probably not too different from those that are shared with siblings. The amount of time that is spent with siblings compared to friends may also be very similar.

This thesis will examine the question of whether or not two key predictors of relationship satisfaction, equity and relational maintenance, operate in a similar fashion for both types of relationships during emerging adulthood. A rationale for why the predictors operate differently will be advanced. To develop this case, the following topics have been discussed: emerging adulthood, the nature of sibling relationships, the nature of friendships, a comparison between these two types of close relationships that establishes that they are discordant, and development of the assertion that this may influence processes in them. The following constructs will be discussed in detail in order to establish how they relate to each other and how they may vary by relationship type: maintenance, equity, and satisfaction.

The specific dynamic aspects of interest in this study are related to satisfaction. Maintenance is understood to affect satisfaction (Stafford & Canary, 1991) and maintenance in turn is affected by equity (Canary & Stafford, 1992, 1993, 1994, 2001). These conclusions must be re-examined through a dynamic approach that considers the impact of relationship type. Relationship type is predicted to impact both how people think and act in relationships. It is expected that the role that whether will influence equity and maintenance processes play in satisfaction a relationship is between siblings or friends.

Maintenance

The maintenance framework may be particularly well suited to process-oriented relationship scholarship. First, maintenance is itself considered a process. Maintenance is a process in that dynamic activities are involved (Canary & Stafford, 1994). Second, focus is
directed contextually, towards antecedents that predict maintenance and outcomes that result from it (Perlman, 2001).

**What is maintenance?** The field of maintenance scholarship is directed towards investigation of the behaviors that take place during the period between initiation and termination of a relationship (Dindia & Canary, 1993). This behavior can be considered relational maintenance. Relational maintenance has been defined several ways. In this study, the specific definition of relational maintenance adopted is behaviors and activities which individuals engage in to keep their relationships in a satisfactory state or condition (Dindia & Canary, 1993).

There are two types of maintenance. Maintenance may be routine or it may be strategic. Routine maintenance is unplanned whereas strategic maintenance is planned. Many past studies that examined relational maintenance focused on one type of maintenance exclusively (e.g. Canary & Stafford, 2001: Stafford & Canary, 1991).

It may be that the focus on one type of maintenance is a purposeful consequence of the researchers' philosophy of relationships. As Duck (1994) notes there are two very different philosophies regarding relationships. One perspective takes the opinion that relationships will disintegrate without attention, thus continual, pre-emptive maintenance activities would be required. The other perspective suggests that relationships will continue unless they are pulled apart by some force; in this case, strategic maintenance activities would be needed when a relationship is threatened.

Duck (1994) has reasonably suggested that a third perspective, a balance between the two previously identified philosophies, may be more realistic. It may be that in some cases the focus on one type of maintenance exclusively did not reflect the authors' beliefs about relationships, but rather was a consequence of the fact that maintenance theory was less
sophisticated. As understanding of maintenance becomes increasingly complex it is probable that research will include both routine and strategic conceptions of maintenance as exemplified by Stafford, Dainton, and Haas (2000).

Maintenance behaviors are necessary to ensure relationship quality. High quality relationships require attention. People have to do a variety of things, such as develop rituals (Canary et al., 1993), or tell the other how much they mean to them (Stafford et al., 2000). Not only are these maintenance behaviors required, they are required often. The significance of these actions may fade rapidly. It may be that the effect of a given behavior is limited to just a few days (Canary, personal communication, February 8, 2001).

Thus, consistent with Canary and Stafford’s (1994) first proposition (“All relationships require maintenance or else they deteriorate,” p.7):

H3- Level of maintenance behavior will be positively related to satisfaction.

However, will this proposition apply equally to siblings and friends?

Maintenance and relationship type. It is suggested that maintenance is required in order for a relationship to be satisfying (Canary & Stafford, 1994). However the sibling relationship appears as though it may be an exception to this rule. One of the crucial differences between siblingship and friendship, the voluntary aspects of the relationships, may have an impact that changes the role of maintenance. If a relationship is involuntary is maintenance required? Why would maintenance be required for a role that is obligatory? This difference between siblings and friends has not been considered in the maintenance literature. If this difference is taken into account then the proposition of the necessity of maintenance will not apply equally to siblings and friends. In fact, this proposition may not apply to siblings at all.

While Canary and Stafford (1994) suggest that maintenance is required in all
relationship types they do acknowledge that maintenance will vary according to relationship type. Maintenance is not expected to be the same in all relationships. There are two ways that maintenance may differ between relationship types: the impact of the maintenance may vary or actual maintenance behavior may vary.

There may be differences in actual maintenance behavior. It has been shown that there are significant differences in choice and frequency of maintenance behaviors according to the type of relationship, in some sorts of relationships. Stafford and Canary (1991) found differences in maintenance behavior between relationship types - casually dating individuals varied from those who were engaged, seriously dating, and married. Different maintenance strategies were favored in different types of dyads. For instance the use of social networks to maintain a relationship was reported more frequently by those who were married. Canary et al. (1993) also reported that the frequency of certain maintenance behavior was affected by relationship type.

Actual maintenance behavior has also been shown to differ between relationship types. In a study of maintenance behaviors in gay and lesbian relationships Haas and Stafford (1998) discovered several unique maintenance behaviors compared to those identified previously in heterosexual dyads. Different strategies of maintenance were needed in gay and lesbian relationships perhaps in response to a lack of widespread acceptance for such relationships; for instance choosing environments to socialize in that are supportive of gay/lesbian relationships emerged as such a maintenance behavior.

Since the relationships of siblings and friends differ so markedly, maintenance behavior is expected to differ. It is probable that there will be certain strategies utilized more or less frequently by a certain relationship type. For example, one category of relational maintenance strategies (Stafford & Canary, 1991), assurances, may not be
applicable to siblings. For example one item from that factor, "Implying that our relationship has a future", would be a strategy more relevant to friends, who have more choice in whether their relationship continues into the future, than to siblings.

Q1- Will there be a significant difference between the specific strategies chosen by siblings compared to friends?

There should even be variance in the amount of maintenance behavior that is engaged in by each relationship type. Since the sibling relationship is involuntary maintenance will be less relevant than it is to friends and siblings may report fewer maintenance activities. Thus,

H4- There will be a significant difference in the amount of maintenance behavior that occurs between siblings compared to friends. Friends will report significantly greater levels of maintenance behaviors.

Maintenance in close relationships that are romantic has been scrutinized more than it has been in those relationships that are not romantic. Siblings and friends have been somewhat neglected; in some cases maintenance in these types of relationships has been examined (e.g., Canary et al., 1993) and this study aims to continue this work. When the two types of close relationships of interest in this study are analyzed it may be that maintenance behaviors will be identified which apply only to siblings or to friends.

Q2- Will new maintenance behaviors be identified by siblings?
Q2b- Will new maintenance behaviors be identified by friends?

Not only might there be differences in actual maintenance behaviors the relationship between maintenance and satisfaction itself may be impacted by relationship type. Although the correlation between maintenance behaviors and satisfaction is expected in both sibling and friend relationships it is predicted that the effect will be moderated. Differences (in
time, communal orientation, and choice) in these two relationships are such that the role of maintenance will be changed. Due to these differences it is expected that the correlation will be stronger for the relationship between friends than between siblings. Thus, H5- The positive relationship between maintenance and satisfaction will be more pronounced in friendships compared to sibling relationships.

As well, the most effective maintenance behaviors may vary by relationship type. The categories of maintenance more strongly correlated with satisfaction may vary between siblings and friends. Q3- Will the magnitude of how the specific types of maintenance correlate with satisfaction differ by relationship type?

Equity

Specific qualities within relationships may be antecedent to maintenance. A refined examination of the impact of qualities previously identified as relevant to maintenance is warranted. Of interest in this study is the role of equity.

What is equity? Equity theory proposes an equation that is a method of comparison to determine fairness in relationships (Walster, Walster, & Berscheid, 1978). To determine if a relationship is equitable or inequitable the input and outcome ratio of each partner is scrutinized. If both partners receive the same ratio of benefits to costs (regardless of exactly how much each invests or gets in return), the relationship is equitable. Equity is the preferred state of affairs. Inequity occurs in two different ways. If an individual reports fewer outcomes in relation to their inputs than their partner does they are under benefited. Conversely an individual is over benefited if they report more outcomes, in relation to their inputs, than their partner does. While this may seem desirable it is not.

Equity theory is based on four propositions (Walster et al., 1978):
1. Individuals will try to maximize their outcomes (where outcomes equal rewards minus punishments).

2. Groups will devise systems of equity and will reward those who abide by the system and punish those who do not.

3. Relationships that are not equitable will cause stress in proportion to how inequitable they are.

4. Individuals in inequitable relationships try to restore equity to their relationships to alleviate their distress. The more inequitable, thus distressing, the relationship the greater the person will try to restore equity.

Equity can be restored two ways: either by correcting actual or employing psychological equity (Walster et al., 1978; Hatfield, Utne, & Traupmann, 1979). Actual equity restoration occurs by changing the relationship. This might refer to such acts as a person changing their inputs into a relationship to make it more equitable or to a person leaving the field by simply ending a relationship. Psychological equity restoration occurs by changing the way a relationship is thought of. An example would be a person that has been convinced that they are receiving more from an inequitable relationship than they actually are.

Equity and maintenance. Equity theory has been a key perspective used in the analysis of relational maintenance. There is evidence that people differ in their maintenance behavior according to their perception of how equitable their relationship is. In equitable relationships people engage in maintenance behaviors more so than those in inequitable relationships (Canary & Stafford, 1994). Why does equity level effect choices about maintenance? Individualistic societies focus on fairness in relationships. It is preferable to be in an equitable relationship or, if not equitable then to be the over benefited partner.
These are preferable sorts of relationships and people would be motivated to maintain them. On the other hand, if people find that they are under benefited they are likely to be unhappy and less inclined to work at maintaining the relationship. As Canary and Stafford note people can use or not use maintenance behaviors as a strategy to restore equity. It has been demonstrated that the proposition of equity as antecedent to maintenance applies to many types of relationships. For example, the connection between equity and maintenance has been reported for married or dating couples (Canary & Stafford, 1992), and platonic opposite-sex friends (Messman, Canary, & Hause, 2000).

It is generally accepted that equity principles operate in most relationships. But, in intimate relationships where love and caring is involved people may avoid, or be tentative about applying equity concepts (Mills & Clark, 2001). The equation seems simplistic, and the propositions harsh and selfish. It seems callous to think that a degree of selfishness or self-interest determines satisfaction in these relationships; true or unconditional love is not supposed to operate according to principles such as these. Generally the consensus has been that these principles do operate in our most intimate relationships. Equity theory may seem to be too simple to accommodate the complexity inherent in close relationships but the theory does account for intimate relationships. Equity theorists acknowledge that there are aspects of intimate relationships that set them apart and make them unique from casual relationships (Hatfield et al., 1979). But these features apparently do not exempt these close relationships from the rules of equity.

**Equity and relationship type.** The equity principle is supposed to apply to all relationships (Walster et al., 1978). Even intimate relationships follow equity principles. Numerous exceptional features of intimate relationships have been considered and accounted for as subject to equity. If intimate relationships are subject to equity should not
close relationships be so as well?

The sibling relationship is involuntary; it thus may be somewhat futile to be overly concerned with equity. There are fewer options available to siblings to restore equity. Perhaps the sibling relationship is an exception to the equity principle. There are two ways that it might be demonstrated that equity differs between relationship type. This difference may be expressed either through siblings failing to endorse equity or, through equity failing to effect the assessment of satisfaction in sibling relationships.

Due to the contrasting nature of these two relationship types it is predicted participants will report three key differences regarding the impact of equity between sibling relationships and friendships.

First, recognition of equity as salient will vary significantly by relationship type. Thus,

H6- Endorsement of equity as important will vary by relationship type. Participants reporting on a sibling relationship will not endorse equity as important to the extent that those reporting on friendships will.

Second, the impact of equity level on maintenance behavior will vary significantly by relationship type. Thus,

H7a- Reported equity level (equitable, under benefited, over benefited) will influence maintenance behavior in friend relationships. Equity will be positively related to maintenance; whereas inequity (either under benefited or over benefited) will be negatively related to maintenance.

H7b- This effect will not be found in sibling relationships.

And third, whether the impact of equity will be mediated by maintenance will vary significantly by relationship type. Thus,
H8a- Reported equity level (equitable, under benefited, over benefited) will be related to satisfaction; however this relationship will be mediated by maintenance.

H8b- This relationship will not be reported in sibling relationships.

Satisfaction

In order to evaluate individuals’ levels of happiness with their close relationships satisfaction may be assessed. There are multiple conceptions of satisfaction. Satisfaction is a positive, fulfilling feeling derived from a relationship (Vangelisti & Huston, 1993). The feeling of satisfaction is usually correlated with experience of other positive variables such as love or trust. It may be difficult to separate the concept of satisfaction from the other conceptual variables since they frequently occur together. For instance, couples are expected to love each other and be satisfied with their relationship. Consider, though, a situation reported by Vangelisti and Huston, in which a subject felt love for her husband but was not satisfied with him due to his frequent absences. Other variables, such as love, are often concordant with satisfaction but this is not always the case. Satisfaction is not static; it changes over time (Bradbury, Fincham, & Beach, 2000). A process-oriented examination of satisfaction may analyze satisfaction over a period of time. On the other hand satisfaction may be measured as an outcome; this would entail a report of satisfaction that is time specific.

There are several measures that are designed to capture the concept of satisfaction. Just as there are multiple conceptual definitions of satisfaction there are also numerous operational definitions of satisfaction. Often the measure is an amalgamation of the other variables associated with the feeling of satisfaction. Depending on the purpose of the study or theoretical concerns different authors have selected different definitions of satisfaction.

Canary and Stafford (1992), for example, have used control mutuality, trust, liking,
and commitment to form a measure of satisfaction in their work. Control mutuality is a measure of agreement in a dyad of who is in control of the relationship. The concern is agreement between the parties, rather than an examination of whom is in control. The second and third components, trust and liking are self-evident. Lastly, commitment is a measure designed to capture the degree that people hope to continue their relationship. These four components are seen as critical to satisfaction. Without them relationships will not be satisfying and will lack quality. While Canary and Stafford’s (1992) scale is satisfactory for some purposes it is not a universal measure of satisfaction. Since this scale was developed for use with dyads whose relationship is voluntary certain aspects of the scale are less relevant to involuntary relationships. For instance, commitment is a less relevant concept to sibling relationships than it would be to voluntary relationships. For these reasons another scale to measure satisfaction was utilized, the Relationship Assessment Scale (Hendrick, 1988, Hendrick, Dicke, & Hendrick, 1998).

A more universal method of measuring the concept of satisfaction may be the Relationship Assessment Scale (Hendrick, 1988, Hendrick, Dicke, & Hendrick, 1998). The first version of this scale (the Marital Assessment Questionnaire or MAQ) was originally designed to assess marital relationships (1981). The RAS was created when the MAQ was adapted to be relevant to other sorts of romantic relationships (1988). Hendrick also suggested that while the RAS had not been developed to apply to relationships other than marriage, the scale is generic enough to be used for other purposes.
Two Paths

To sum up, sibling relationships and friendships are not equivalent and as a result their relationships will take different paths. As discussed previously, the structure of the sibling relationship differs from friendships. There is a difference in the length of the relationship, the communal orientation, and the role of choice. As the relationship between friends and siblings are not equivalent, it is expected that while satisfaction levels may be similar, the path to that outcome should vary.

There are two ways that siblings and friends differ.

H1- The length of time participants will report having known each other will vary significantly between the two types of relationships. Relationships between siblings will span a greater length of time than the relationships between friends.

H2- Participants will vary in their communal orientation depending upon relationship type; siblings will be more communally oriented than friends.

There is a typical path to satisfaction that has been identified (Canary & Stafford, 1992). Equitable relationships are maintained well, more so than inequitable relationships, and relationships that are maintained well are satisfying.

This path has been determined through the examination of various types of voluntary relationships. This path likely fits friendships since they are also voluntary relationships. However the sibling relationship is not. The typical expectations about maintenance and equity do not apply.

Maintenance behaviors are expected to contribute to satisfaction in both types of relationships. Engaging in maintenance is beneficial. Paying attention to a relationship, be it one with a sibling, or a friend, will have positive results.

H3- Level of maintenance behaviors will be positively related to satisfaction.
However, the typical expectation regarding maintenance is that it is required in relationships since relationships do not exist without effort. People are supposed to have to work to maintain their relationships. But this is less true of the relationship between siblings.

**H4** - There will be a significant difference in the amount of maintenance behavior that occurs between siblings compared to friends. Friends will report significantly greater levels of maintenance behaviors.

Although it is expected that this correlation between maintenance behaviors and satisfaction will be found in both sibling and friend relationships it is predicted that the effect will be stronger for siblings.

**H5** - The positive relationship between maintenance and satisfaction will be more pronounced in friendship compared to sibling relationships.

Relational maintenance between siblings, or friends, has not been examined. There are many details that are not yet known. Three questions will be asked in this study regarding how relational maintenance differs between siblings and friends.

**Q1** - Will there be a significant difference between the specific strategies chosen by siblings compared to friends?

**Q2** - Will new maintenance behaviors be identified by siblings?

**Q2b** - Will new maintenance behaviors be identified by friends?

**Q3** - Will the magnitude of how the specific types of maintenance correlate with satisfaction differ by relationship type?

Equity is expected to be antecedent to maintenance. Generally if people have an equitable relationship they will work at maintaining the relationship whereas they will not work at maintaining relationships that are unfair or inequitable. There has not been an
examination of whether the relationship between equity and maintenance holds for the sibling relationships but it is predicted that this relationship will not exist as it does for friends. There will be three differences.

First, endorsement of equity as important will vary by relationship type.

H6- Endorsement of equity as important will vary by relationship type. Participants reporting on a sibling relationship will not endorse equity as important to the extent that those reporting on friendships will.

Second, the impact of equity level on maintenance behavior will vary significantly by relationship type.

H7a- Reported equity level (equitable, under benefited, over benefited) will influence maintenance behavior in friend relationships. Equity will be positively related to maintenance; whereas inequity (either under benefited or over benefited) will be negatively related to maintenance.

H7b- This effect will not be found in sibling relationships.

And third, whether the impact of equity will be mediated by maintenance will vary significantly by relationship type.

H8a- Reported equity level (equitable, under benefited, over benefited) will be related to satisfaction; however this relationship will be mediated by maintenance.

H8b- This relationship will not be reported in sibling relationships.

It will be demonstrated that there are two completely different paths to satisfaction. One path is for friends, and one path is for siblings.
Methods

Sample

Participants were recruited from students enrolled in undergraduate Family Studies courses at the University of British Columbia. This group was selected as a convenience sample.

An estimated total of 600 female students were approached during eight different classes. This number is an estimate, as students on the enrollment list may have been absent from classes and many students are enrolled in more than one of the classes.

The purpose of the study was explained briefly and female students 18-25 with one or more female siblings (i.e., full biological, half-sibling, step or adopted sibling) were invited to take part by completing a survey about a relationship. Interested students were asked to take the questionnaire at the end of class, complete it at a convenient time, and then bring it back to the next few classes where it would be collected. The researcher explained that they would be asked about one of two types of relationships, either a female sibling or a close female friend, and that there was a random chance of receiving either type of survey.

Many of the students who were approached to participate were ineligible for this study as they were either outside the age restriction, had male siblings only, or did not have any siblings. It is difficult to determine exactly how many of the students who were contacted were eligible to participate. Of the women who were eligible to participate 193 chose to take a survey. Of those 99 were completed and returned (a response rate of 51.3%). Two of the completed surveys were not used. These surveys were rejected because the participants deviated in excess of three standard deviations on at least one of the key variables. Of the 97 surveys that were used 55 were completed in regard to a relationship
with a sibling (Group 1) and 42 were completed in regard to a relationship with a friend (Group 2).

The mean age of participants from Group 1 (those reporting on a relationship with a sibling) was 21.1 years (SD=1.59); the mean age of participants from Group 2 (those reporting on a relationship with a friend) was 20.7 years (SD= 1.86). The mean age of these two groups was not significantly different ($t (1, 94) = 983, p > .10$). The age range for both of these groups was 18 to 25.

Two participants were eliminated from this study due to the age of the person they completed the survey about. Although there were no specific requirements regarding the age of the subject that participants could select to report on, those who deviated more than three standard deviations were removed. The two surveys that were deleted were people who selected a very young sibling as their subject.

The mean age of siblings reported on was 22 years (SD= 4.62). The range of the ages of the siblings was from 10 to 32 years. The mean age of the close friends was 20.8 years (SD=1.99). The range of the friends' ages was smaller, between 18 and 25. Although the range of the ages of the siblings who were selected is much larger the difference between the mean ages of these two groups was not significant ($t (77) = 1.713, p > .05$) because the majority of those in each group fall close to the means, which are so similar.

Participants from Group 1 were most frequently the second born in their family. The birth order positions ranged from first to fifth born. Participants from Group 2 were also most frequently the second born in their family. However their birth order positions ranged from first to fourth.

A total of 36.1% of the participants in this study were not born in Canada, and 63.9% were. When asked to which ethnic group they identified (in addition to Canadian) 50.6%
indicated an Asian group, 28.1% indicated a European group, 12.4% indicated a Middle Eastern group and 9.0% indicated other responses.

Procedures

The research questions were addressed through a questionnaire designed to identify participants' attitudes. Half of the surveys distributed asked the participants to think of their closest sibling. The other half of the surveys asked participants to think of their closest friend. Instructions requested that participants complete the survey with this person in mind. A definition of the term “close” was included at the beginning of the survey. The instruction was, “In order to start please chose the one female sibling/friend that you have the closest and most significant relationship with whom (this is the sibling/friend you interact with frequently, you know well, and has the greatest impact on you) and answer the following questions with them in mind.”

Measures

At the beginning of the survey appropriate demographic information about the participants and also the participants’ subjects (their siblings or friends) was collected. Such details as age of participant, age of sibling or friend, participants’ birth order, length of relationship being reported on, and the age of, gender of, and relationship to all siblings of the participant was collected. The rest of the survey was divided into nine sections (see Appendix A).

Sections one through three and five through eight consisted of scales assessing the constructs of interest in this study (see Table 1). In chronological order, the scales examined: degree of contact with the sibling or friend, reported equity level, endorsement of equity as important, relationship satisfaction, maintenance behaviors, and communal orientation. As many of the scales in their original format would not apply to a sibling or
friend relationship without changes in wording limited changes to phrasing were necessary. These changes did not affect the meaning of the items.

Table 1

**Measures and Their Use**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Variable</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>relationship length</td>
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</tr>
<tr>
<td></td>
<td>relationship type</td>
<td>self report</td>
</tr>
<tr>
<td>2</td>
<td>communal orientation COS</td>
<td>self report</td>
</tr>
<tr>
<td></td>
<td>(scale)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>relationship type</td>
<td>self report</td>
</tr>
<tr>
<td>3</td>
<td>maintenance</td>
<td>Stafford, Dainton, and Haas 7 factor scale</td>
</tr>
<tr>
<td></td>
<td>satisfaction</td>
<td>RAS (scale)</td>
</tr>
<tr>
<td>4</td>
<td>maintenance</td>
<td>Stafford, Dainton, and Haas 7 factor scale (total)</td>
</tr>
<tr>
<td></td>
<td>relationship type</td>
<td>self report</td>
</tr>
<tr>
<td>5</td>
<td>maintenance</td>
<td>Stafford, Dainton, and Haas 7 factor scale (total)</td>
</tr>
<tr>
<td></td>
<td>satisfaction</td>
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<tr>
<td></td>
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<td>self report</td>
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<td>Measure</td>
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<td>-------------------------------</td>
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<tr>
<td>6</td>
<td>endorsement of equity</td>
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<td></td>
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<td>self report</td>
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<td></td>
<td>maintenance</td>
<td>Stafford, Dainton, and Haas 7 factor scale (total)</td>
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<tr>
<td></td>
<td>relationship type</td>
<td>self report</td>
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<tr>
<td>8</td>
<td>equity</td>
<td>index</td>
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<tr>
<td></td>
<td>maintenance</td>
<td>Stafford, Dainton, and Haas 7 factor scale (total)</td>
</tr>
<tr>
<td></td>
<td>satisfaction</td>
<td>RAS (scale)</td>
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<tr>
<td></td>
<td>relationship type</td>
<td>self report</td>
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<tr>
<td>Hypothesis</td>
<td>Variable</td>
<td>Measure</td>
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<tr>
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<td>maintenance</td>
<td>Stafford, Dainton, and Haas 7 factor scale (by factor) relationship type self report</td>
</tr>
<tr>
<td>2</td>
<td>maintenance</td>
<td>open ended question relationship type self report</td>
</tr>
<tr>
<td>3</td>
<td>maintenance</td>
<td>Stafford, Dainton, and Haas 7 factor scale (by factor) satisfaction RAS (scale) relationship type self report</td>
</tr>
</tbody>
</table>

Note: COS = Communal Orientation Scale; RAS = Relationship Assessment Scale

The fourth section consisted of two open-ended questions. These questions are designed to elicit responses that may reveal new kinds of maintenance behavior that scales developed previously (for other types of relationships) have not uncovered. Participants were asked, "Please offer examples of behaviors (positive and/or negative) that you have used to maintain your relationship" (Canary & Stafford, 1991). They were also asked, "Much of maintaining a relationship can involve mundane or routine aspects of day-to-day life. These are things you might not have thought of above because they might seem too
trivial. Please try to describe the routine things you do to maintain your relationships" (Dainton & Stafford, 1993).

Section nine asked whether the participant was born in Canada, and if not at what age they immigrated. This section also asked to which ethnic group, besides Canadian, the participant felt they belonged.

Communal orientation. Communal orientation was measured with the Strength of Communal Orientation Scale (COS) developed by Mills and Clark (1990). Participants responded to ten questions regarding the communal nature of their relationship. For instance, one item was "How high a priority for you is meeting the needs of ____?" Responses may range from 0 being "not at all" to 10 being "extremely". Information regarding the reliability or validity of this scale is not available as it is still in development (Clark, personal communication, March 11, 2002). However, this scale was developed by two prominent experts in the field of communal relationships, is easy for participants to answer and its face and content validity is strong. The alpha for this scale in this study was .86.

Endorsement of equity as important. A single item addressed endorsement of equity that Messman et al. (2000) developed. Participants indicated their response to the question, "How important is it to you that you and this person are equally rewarded in this relationship?" Responses may range from 1 being "It is not very important" to 5 "It is very important." This item was modeled upon the Hatfield Global Measure of Equity-Inequity (1978, as cited in Hatfield et al., 1979). Its face and content validity are high.

Reported equity level. Reported equity level was assessed by two measures. First equity was assessed using the Hatfield Global Measure of Equity-Inequity (1978, as cited in Hatfield et al., 1979). Participants responded to the question, "Considering what you put
into your relationship compared to what you get out of it, and what your sibling/friend puts into it compared to what s/he gets out of it, how does your relationship "stack up"?" The responses to choose from are: 1= "I am getting a much better deal than this person"; 2= "I am getting a slightly better deal"; 3= "We are both getting an equally good... or bad deal", 4= "This person is getting a slightly better deal"; to 5= "This person is getting a much better deal than I". This measure has frequently been used to analyze equity in many previous studies of equity and maintenance (e.g. Canary & Stafford, 2001; Messman et al., 2000). Also it is applicable to both types of relationships of interest in this study.

The second measure to assess equity is from Sprecher (1986). Participants indicated their response to the question, "Consider all the times when the exchange in your relationship has become unbalanced and one partner contributed more than the other for a time. When your relationship becomes unbalanced, which of you is more likely to be the one who contributes more?" Responses range from: 1= My partner is much more likely to be the one to contribute more; to 7= I am much more likely to be the one to contribute more. This measure has been used to analyze equity in a previous study of equity and maintenance (Canary & Stafford 2001).

These two measures were combined to form an index following the example of Canary and Stafford (2000) who have used a similar index in previous research. The score on each of the Hatfield measure (1978, as cited in Hatfield et al., 1979) and the Sprecher (1986) measure were summed (up to a possible 14). Scores of 2-6 equaled over benefited. Scores of 7-9 equaled equitable. Scores of 11-14 equaled under benefited. The individual items were significantly correlated (r = .53, p < .01). The alpha for this index was .67.

Maintenance behavior. Maintenance behavior was measured with a newer, modified version of Canary and Stafford’s (1991, 1992) original maintenance scale from Stafford et
al. (2000). Canary and Stafford's (1991, 1992) scale was constructed by analyzing coded responses to the question "What do you do to maintain a satisfactory relationship?" This scale has 29 items (e.g. "We agree what we can expect from one another.") and five factors (positivity, openness, assurances, network, and tasks).

Stafford et al.'s (2000) scale was designed to address routine as well as strategic behavior. In order to incorporate routine maintenance behavior, during the development of this scale participants were asked to answer two questions. First, "Please offer examples of behaviors (positive and/or negative) that you have used to maintain your relationship" (from Canary & Stafford, 1991) and second, "Much of maintaining a relationship can involve mundane or routine aspects of day-to-day life. These are things you might not have thought of above because they might seem too trivial. Please try to describe the routine things you do to maintain your relationships" (Dainton & Stafford, 1993). Both scales solicit responses along a 1 to 7 Likert continuum. Responses range from 1 being "strongly disagree" to 7 being "strongly agree". Responses were coded and analyzed resulting in a 31-item scale (e.g. "I tell my partner how much s/he means to me.") The items split into seven factors (assurances, openness, conflict management, shared tasks, positivity, advice, and social networks).

The newer scale was used in this study because accessing information about routine maintenance was deemed important. These two scales were highly correlated ($r = .93$, $p < .001$). The alpha for the Stafford et al. (2000) scale that was selected for use was .93. There is not an abundant amount of psychometric data available about this scale; however, there is a substantial literature that has utilized the original scale by Canary and Stafford (1991, 1992), upon which Stafford et al. (2000) based their scale.

**Relationship satisfaction.** Relationship satisfaction was determined with the
Relationship Assessment Scale (RAS) developed by Hendrick (Hendrick, 1988; Hendrick et al., 1998). Participants responded to seven questions regarding their satisfaction with their relationship. For instance, one item was, "How well does your partner meet your needs?" Responses reflect the degree of agreement with the statement. Scale scores can range from "1" being high agreement with the statement to "5" being low agreement with the statement. This scale has been shown to be unifactorial, with a test-retest reliability of .85, and a .86 alpha (Hendrick, 1998). This scale has also been shown to correlate with other measures of relationship satisfaction, such as the Dyadic Adjustment Scale (Hendrick, 1998), but is much briefer. In order to improve the alpha of the RAS scale one item was removed, "How much do you love your sibling/friend?" With this item removed the alpha changed from .89 to .90.

Results

This thesis tested eight major hypotheses. To test these hypotheses various statistical tests including correlations, z-tests for the significance of the differences of the magnitude between correlations, MANOVAs and regressions were completed. The results will be presented sequentially, hypothesis by hypothesis. Tables 2 and 3 show the mean, standard deviation and range, by group for some of the important scales in this study. The two groups were quite similar in terms of the main constructs, as shown in Table 2 and 3, but there were some significant differences discovered. The similarities and differences will both be reported and discussed in the following sections.
Table 2
 Means, Standard Deviations, and Range of Key Variables for Siblings

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>COS</td>
<td>77.13</td>
<td>10.36</td>
<td>51 - 98</td>
</tr>
<tr>
<td>Equity Endorsement</td>
<td>3.78</td>
<td>1.15</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Maintenance</td>
<td>153.96</td>
<td>27.26</td>
<td>92 - 210</td>
</tr>
<tr>
<td>RAS</td>
<td>11.39</td>
<td>4.46</td>
<td>6 - 24</td>
</tr>
</tbody>
</table>

Note: COS= Communal Orientation Scale; RAS= Relationship Assessment Scale

Table 3
 Means, Standard Deviations, and Range of Key Variables for Friends

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>COS</td>
<td>69.51</td>
<td>13.50</td>
<td>41-92</td>
</tr>
<tr>
<td>Equity Endorsement</td>
<td>3.64</td>
<td>1.25</td>
<td>1-5</td>
</tr>
<tr>
<td>Maintenance</td>
<td>153.76</td>
<td>28.51</td>
<td>88-195</td>
</tr>
<tr>
<td>RAS</td>
<td>12.39</td>
<td>5.43</td>
<td>6-24</td>
</tr>
</tbody>
</table>

Note: COS= Communal Orientation Scale; RAS= Relationship Assessment Scale
Table 4 shows the correlations among all of the main variables first for siblings and then for friends.

Table 4

**Intercorrelations Between Key Variables (Communal Orientation, Endorsement of Equity, Equity Index, Maintenance, Relationship Satisfaction) for Siblings and Friends**

<table>
<thead>
<tr>
<th></th>
<th>COS</th>
<th>Equity Endorsement</th>
<th>Equity Index</th>
<th>Maintenance</th>
<th>RAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>COS</td>
<td>--</td>
<td>-.08</td>
<td>-.06</td>
<td>.47**</td>
<td>.52**</td>
</tr>
<tr>
<td>Equity Endorsement</td>
<td>.33**</td>
<td>--</td>
<td>-.12</td>
<td>.07</td>
<td>-.03</td>
</tr>
<tr>
<td>Equity Index</td>
<td>.10</td>
<td>.08</td>
<td>--</td>
<td>-.12</td>
<td>.19</td>
</tr>
<tr>
<td>Maintenance</td>
<td>.65**</td>
<td>.33*</td>
<td>-.16</td>
<td>--</td>
<td>.56**</td>
</tr>
<tr>
<td>RAS</td>
<td>.47**</td>
<td>.15</td>
<td>.11</td>
<td>.47**</td>
<td>--</td>
</tr>
</tbody>
</table>

*Note:* *p < .05; **p < .01. Intercorrelations for siblings are presented above the diagonal, and the intercorrelations for friends are presented below the diagonal. COS = Communal Orientation Scale; RAS = Relationship Assessment Scale
Hypothesis 1

The length of time participants will report having known each other will vary significantly between the two types of relationships. Relationships between siblings will span a greater length of time than the relationships between friends.

This was determined by a between subjects $t$-test comparing the mean length of time participants report having known the person they are reporting on between siblings and friends.

The mean amount of years participants from Group 1 reported knowing their siblings was 19.81 ($SD = 2.93$). The range of relationship length was between 10 and 24 years. The mean amount of years participants from Group 2 reported knowing their friends was 9.11 ($SD = 5.2$). The range of relationship length was between 1 and 21 years. A between subjects $t$-test showed that the difference between the two groups was significant ($t (60) = 11.74, p < .001$). Siblings had known each other longer than friends.

Hypothesis 2

Participants will vary in their communal orientation depending upon relationship type; siblings will be more communally oriented than friends.

This was determined by a between subjects $t$-test comparing the mean score on the COS (Mills & Clark, 1990) between siblings and friends. The mean score of participants from Group 1 on the COS (Mills & Clark, 1990) was 77.13 ($SD = 10.36$). The mean score of participants from Group 2 on the COS was 69.51 ($SD = 13.50$). A between subjects $t$-test showed that this difference was significant ($t (72) = 3.01, p < .01$). Siblings were more communal than friends.
Hypothesis 3

Level of maintenance behaviors will be positively related to satisfaction.

This was determined by a correlation between total amount of maintenance and the score on the RAS that included both Group 1 and Group 2 together (Hendrick, 1988; Hendrick et al., 1998). Maintenance and satisfaction were positively correlated ($r_{(97)} = .51, p < .01$). As maintenance values rise satisfaction does as well; this was true of all the participants considered as one large group.

Hypothesis 4

There will be a significant difference in the amount of maintenance behavior that occurs between siblings compared to friends. Friends will report significantly greater levels of maintenance behaviors.

This was determined by a $t$-test comparing total amount of maintenance between Group 1 and Group 2. The mean level of total maintenance for those who reported on a sibling relationship was 153.96 ($SD = 27.26$). The mean level of total maintenance for those who reported on a friend relationship was 153.76 ($SD = 28.51$). The difference in total maintenance level between these two groups was not significant ($t_{(92)} = .03, p > .05$).

Hypothesis 5

The positive relationship between maintenance and satisfaction will be more pronounced in friendships compared to sibling relationships.

In the RAS scale lower scores reflect higher satisfaction and the possible range for this scale is between 6 and 30. The mean score for Group 1 was 11.39 ($SD = 4.46$) while the mean score for those reporting from Group 2 was 12.39 ($SD = 5.43$). The difference in means between the groups was not significant ($t_{(94)} = 1.07, p > .05$). The mean scores on the maintenance scales have previously been reported for each group and they did not differ
significantly.

Hypothesis 5 is concerned with the relationship between these variables rather than their levels. In order to address Hypothesis 5 the correlation of total amount of maintenance to satisfaction for both siblings and friends were calculated and then compared through a z-test suggested by Walker and Lev (1969). The first step was to review correlations for each group. The correlation between maintenance and satisfaction for Group 1 was significant ($r (53) = .56, p < .01$). The correlation between maintenance and satisfaction for Group 2 was also significant ($r (41) = .47, p < .01$). In order to determine if these correlations are significantly different between groups the $z$ scores for each group were calculated (Group 1 $z = .63$ and Group 2 $z = .51$) and then compared. They were not significantly different ($z = .58, p > .05$).

**Question 1**

**Will there be a significant difference between the specific maintenance strategies chosen by siblings compared to friends?**

The mean score for the sibling and friend groups on each factor is reported in Table 1b in Appendix B.

In order to determine if there is a difference between the mean scores on the maintenance factors by group a MANOVA, with relationship type as the independent variable and the seven various categories (or factors) of maintenance strategies as the dependent variables, was employed. No statistically significant differences between the two groups in use of the seven types of maintenance strategies were revealed (see MANOVA results in Table 2b in Appendix B).

**Question 2 & 2b**

**Q2- Will new maintenance behaviors be identified by siblings?**
Q2b- Will new maintenance behaviors be identified by friends?

Ideally these two questions would be addressed by an analysis of participants’ responses to the two open ended questions. "Please offer examples of behaviors (positive and/or negative) that you have used to maintain your relationship" (Canary & Stafford, 1991) and "Much of maintaining a relationship can involve mundane or routine aspects of day-to-day life. These are things you might not have thought of above because they might seem too trivial. Please try to describe the routine things you do to maintain your relationships" (Dainton & Stafford, 1993). Responses judged, by those permitted access to the data, to not fit in previously developed categories of maintenance would be coded and analyzed to determine if any new categories arise.

An initial cursory examination of this data did not reveal any new types of maintenance behaviors. Many of the examples that participants offered could fit into the previously identified categories. The initial reasons these differences were expected were not confirmed thus there was little reason to carry on a detailed analysis.

Due to the overwhelming response to this question and the limited scope of this study it is not possible to analyze this data at this time. Many students wrote large and detailed paragraphs in response to these two questions. The expected response was much briefer than what occurred. Further analysis would be beneficial at a later time.

Question 3

Will the magnitude of how the specific types of maintenance correlate with satisfaction differ by relationship type?

In order to determine if the specific types of maintenance most correlated to satisfaction differ by relationship type the correlation of each factor to satisfaction for both siblings and friends were calculated (see Table 5) and were then compared through a z-test.
No statistically significant relationships are present (see Table 6 for a summary)

Table 5

**Correlations of Maintenance Factors to Satisfaction for Siblings and Friends**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Siblings</th>
<th>Friends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assurances</td>
<td>.45**</td>
<td>.36*</td>
</tr>
<tr>
<td>Openness</td>
<td>.47**</td>
<td>.29</td>
</tr>
<tr>
<td>Conflict Management</td>
<td>.48**</td>
<td>.49**</td>
</tr>
<tr>
<td>Shared Tasks</td>
<td>.14</td>
<td>.45**</td>
</tr>
<tr>
<td>Positivity</td>
<td>.39**</td>
<td>.33*</td>
</tr>
<tr>
<td>Advice</td>
<td>.37**</td>
<td>.10</td>
</tr>
<tr>
<td>Social Networks</td>
<td>.13</td>
<td>.31*</td>
</tr>
</tbody>
</table>

*Note: *p < .05; **p < .01.*
Table 6
Comparison of Z scores for Siblings and Friends by Maintenance Factor

<table>
<thead>
<tr>
<th></th>
<th>Z Siblings</th>
<th>Z Friends</th>
<th>Z Comparison</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assurances</td>
<td>.49</td>
<td>.37</td>
<td>.54</td>
<td>.29</td>
</tr>
<tr>
<td>Openess</td>
<td>.52</td>
<td>.30</td>
<td>.99</td>
<td>.16</td>
</tr>
<tr>
<td>Conflict Management</td>
<td>.53</td>
<td>.53</td>
<td>-.03</td>
<td>.49</td>
</tr>
<tr>
<td>Shared Tasks</td>
<td>.14</td>
<td>.48</td>
<td>-1.57</td>
<td>.06</td>
</tr>
<tr>
<td>Positivity</td>
<td>.41</td>
<td>.34</td>
<td>.33</td>
<td>.37</td>
</tr>
<tr>
<td>Advice</td>
<td>.39</td>
<td>.10</td>
<td>1.35</td>
<td>.09</td>
</tr>
<tr>
<td>Social Networks</td>
<td>.13</td>
<td>.32</td>
<td>-.93</td>
<td>.18</td>
</tr>
</tbody>
</table>

Note: *p < .05; **p < .01.

Hypothesis 6

Endorsement of equity as important will vary by relationship type. Participants reporting on a sibling relationship will not endorse equity as important to the extent that those reporting on friendships will.

This was determined by a between subjects t-test comparing the mean score on the endorsement of equity as important scale between siblings and friends. The mean score for those from Group 1 was 3.78 (SD = 1.15). The mean score for those from Group 2 was 3.64 (SD = 1.25). In both groups the scores ranged from 1 to 5 out of a possible 1 to 5. The difference between these two groups was not significant (t (95) = .57, p > .05).
Hypothesis 7a & 7b

H7a - Reported equity level (equitable, under benefited, over benefited) will influence maintenance behavior in friend relationships. Equity will be positively related to maintenance; whereas inequity (either under benefited or over benefited) will be negatively related to maintenance.

H7b - This relationship will not be found in sibling relationships

The two factors in this equation are relationship type and equity level. Participants’ score on an index determined equity level. The dependent variable was total maintenance behavior.

According to scores on the equity index from Group 1, 31.5% of the sample reported being under benefited, 22.2% reported being over benefited, and 46.3% reported their relationship with their sibling as equitable. From Group 2, 31% of the sample reported being under benefited, 9.5% reported being over benefited and 59.5% reported their relationship with their friend as equitable.

To investigate these two hypotheses a 2X2 ANOVA was conducted. The first factor was relationship type; the two levels were siblings and friends. The second factor was equity level; the two levels were equitable and inequitable. The dependant variable was maintenance level.

ANOVA results indicated that neither relationship type nor equity impact maintenance. Results showed that relationship type was not related to maintenance ($F(1, 89) = .06, p > .05$) and that reported equity level was not related to maintenance ($F(1, 89) = 1.73, p > .05$). As well, the interaction between relationship type and equity level was not related to maintenance ($F(1, 89) = .04, p > .05$).

To demonstrate whether any difference between siblings and friends might be
revealed by a more refined analysis of equity and maintenance an additional 2X3 ANOVA was conducted. In this case the first factor was also relationship type; the two levels were siblings and friends. The second factor was again equity level; however there were three levels of this factor: over benefited, under benefited, and equitable. No significant results were found in this case either.

Hypothesis 8 & 8b

H8- Reported equity level (equitable, under benefited, over benefited) will be related to satisfaction; however this relationship will be mediated by maintenance.

H8b- This relationship will not be reported in sibling relationships.

In order to analyze this hypothesis a regression technique was required. Baron and Kenny’s (1986) technique to demonstrate mediation was used. Prior to regression equations an examination of the correlations between the variables is necessary (Table 7).

Table 7

| Intercorrelations Between Equity, Maintenance, and Satisfaction for Sibling Relationships |
|----------------------------------------|-----------------|----------------|
| Equity                                | Maintenance    | Satisfaction  |
| Equity                                | --             | -.12          | .19           |
| Maintenance                           | --             | --            | -.56*         |

Note: *p < .05; **p < .01.

In order to demonstrate mediation all variables must be correlated. Bivariate correlations for Group 1 (Table 7) revealed that there is one significant correlation between maintenance and satisfaction ($r = -.56, p < .001$). In this case it is not possible to show mediation.
Similar to Group 1, bivariate correlations for Group 2 (Table 8) revealed one
significant correlation between maintenance and satisfaction. Again, mediation cannot be
present as all of the variables were not correlated with each other.

Table 8

<table>
<thead>
<tr>
<th></th>
<th>Equity</th>
<th>Maintenance</th>
<th>Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>--</td>
<td>-.16</td>
<td>.11</td>
</tr>
<tr>
<td>Maintenance</td>
<td></td>
<td>--</td>
<td>-.47*</td>
</tr>
</tbody>
</table>

Note: *p < .05; **p < .01.

Control variables

Several control variables were measured and analyzed. First, two variables, whether
a participant was born in Canada or not and ethnic group, were analyzed. Type of
relationship, equity level, maintenance level, or relationship satisfaction were not
significantly related to being born in Canada or the respondents' ethnic group (see Table 9).
Second, amount of contact was not related to type of relationship, equity level, maintenance
level, or relationship satisfaction (see Table 10). Third, in terms of how much they saw the
other person participants in Group 1 most frequently chose the response that they saw their
sibling "very much". Participants from Group 2 most frequently selected two responses
both that they saw their friend "somewhat" and also "very much". The difference between
these two groups was not significant; this is shown by the chi-square (df = 1, 97) $\chi^2 = 1.742,
p > .05$.
Table 9

Correlation of Immigration Status and Ethnic Group with Type of Relationship, Equity Index, Maintenance and Satisfaction

<table>
<thead>
<tr>
<th>Type of Relationship</th>
<th>Equity</th>
<th>Maintenance</th>
<th>RAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immigrant</td>
<td>.05</td>
<td>-.12</td>
<td>-.05</td>
</tr>
<tr>
<td>Ethnic Group</td>
<td>-1.26</td>
<td>.10</td>
<td>.01</td>
</tr>
</tbody>
</table>

Note: *p < .05; **p < .01

Table 10

Correlation of Amount of Contact with Type of Relationship, Equity Index, Maintenance, and Satisfaction

<table>
<thead>
<tr>
<th>Type of Relationship</th>
<th>Equity</th>
<th>Maintenance</th>
<th>RAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of Contact</td>
<td>-.03</td>
<td>-.03</td>
<td>.17</td>
</tr>
</tbody>
</table>

Note: *p < .05; **p < .01
Discussion

Generally, it seems that while relationships between friends and siblings are different, the association between equity and maintenance are very similar for both groups. Siblings have known each other longer and are more communally oriented than friends. But while the relationships differ in these ways the association between equity and maintenance are not significantly different. Whether a sibling relationship or friendship is considered, maintenance is linked to satisfaction. This was not expected. Instead, it was theorized that the degree of difference between these two relationships would mean that maintenance would apply differentially by being pertinent to friendships but not sibling relationships. Apparently the differences do not have such an effect on maintenance or its link to satisfaction. In addition the effect of equity does not vary according to type of relationship. Siblings appear to be much more similar to friends than was expected.

The specific findings, and significance of these findings, for each hypothesis will be discussed. Along with the explanation of whether a hypothesis can be confirmed or not the original reason for each hypothesis will be reviewed. In cases where the hypothesis is rejected, suggestions of possible reasons for this will be offered. Following the hypothesis specific discussion is a general discussion of the main findings of this study.

Hypothesis 1

The length of time participants will report having known each other will vary significantly between the two types of relationships. Relationships between siblings will span a greater length of time than the relationships between friends.

This prediction is a simple confirmation of common sense. Very few people have known close friends since one of their births, as is the case with most siblings.
Hypothesis 2
Participants will vary in their communal orientation depending upon relationship type; siblings will be more communally oriented than friends.

This prediction was based on the expectation that people would put family first. As the saying goes, “Blood is thicker than water.” There is an expectation that, as siblings, people be more concerned for each other than those who are friends might be. Siblings have a significantly higher score on this scale than friends. However this does not mean that people who are friends are not communally oriented. Both groups’ mean scores are on the high end of this scale.

Hypothesis 3
Level of maintenance behaviors will be positively related to satisfaction.

This prediction was derived from other studies that have consistently demonstrated a link between these two variables. This prediction is offered regarding the entire group of participants in this study. The theory is the more that is done to maintain a relationship the more satisfying it is and this is true with these participants. This hypothesis shows how maintenance is similar between siblings and friends; in both types of relationships maintenance is positively related to satisfaction.

The next two hypotheses and two questions consider how maintenance was expected to differ between siblings and friends.

Hypothesis 4
There will be a significant difference in the amount of maintenance behavior that occurs between siblings compared to friends. Friends will report significantly greater levels of maintenance behaviors.

It was theorized that because siblings would have known each other longer, would be
more communally oriented and were in an involuntary relationship, they would act less to maintain their relationship. This was not confirmed. In fact, the scores were remarkably similar. Siblings and friends have very similar levels of maintenance behaviors. Although the three factors are true siblings are still active in maintenance of their relationships.

The theory was if maintenance is not absolutely required by circumstances, then people would do it less. Since a sibling is not going to stop being a sibling, one can afford to be a little lazy, whereas with friends, this cannot be risked as a friend can stop being a friend. Apparently this is not the case.

There are several possible explanations for this finding. Possibly while people may know that they could take advantage of the circumstances of the sibling relationship they do not. Instead of putting in less effort, they maintain the relationship with their sibling as they would any other relationship. Or, while unlikely, people do not make this distinction between their siblings and friends and not realizing that there is less need to maintain their relationship with their sibling they put in similar levels of effort. Alternatively, all relationships may require a similar level of maintenance to be kept in good working order, regardless of what type of relationship is considered.

Hypothesis 5

The positive relationship between maintenance and satisfaction will be more pronounced in friendship compared to sibling relationships.

It was theorized that since maintenance would be less needed for siblings it would have less impact on satisfaction than would be the case in friendships where maintenance would be more important. This is not true. The relationship between maintenance and satisfaction is not significantly different for siblings and friends. This is reasonable given that this theory was based on the idea that maintenance would be less needed in sibling
relationship and this was found to be incorrect in the previous hypothesis. Since maintenance behavior appears to be required equally in both types of relationships, it makes little sense to imagine that it would have a differential association with satisfaction.

**Question 1**

Will there be a significant difference between the specific maintenance strategies chosen by siblings compared to friends?

It was suggested that of the various maintenance factors, some might be favored by siblings or by friends. It was considered equally possible that there be no difference in the maintenance behaviors chosen between the two types of relationships. The latter case is true. This is reasonable given that no other significant differences in maintenance have been found between the two groups. The scores were actually very similar.

**Question 2**

As noted previously, in the Results section, it was not possible to analyze this question for this study.

**Question 3**

Will the magnitude of how specific types of maintenance correlate with satisfaction differ by relationship type?

It was possible that some types of maintenance might have been more or less correlated with satisfaction depending upon relationship type. It was considered equally possible that there be no difference between the groups. The latter is true. Again this is reasonable given that no other significant differences in maintenance between the groups have been discovered. One factor was almost significantly different between the two groups that is “Shared Tasks” $p = .06$. Given that siblings were more likely to live together sharing tasks might be more routine and be accorded less importance. For friends who may have
less opportunity to share tasks this behavior might be more meaningful.

The next three hypotheses consider how equity was expected to differ between siblings and friends.

**Hypothesis 6**

*Endorsement of equity as important will vary by relationship type. Participants reporting on a sibling relationship will not endorse equity as important to the extent that those reporting on friendships will.*

It was theorized that because siblings would have known each other longer, would be more communally oriented and were in an involuntary relationship, they would be less concerned with equity. There is no significant difference between how both groups saw equity. The means for each group were similar. Both fell closer to ranking equity as important than unimportant. Siblings were expected to be qualitatively different from friends but most of the predicted differences did not occur; further discussion is offered in the general discussion that follows.

**Hypothesis 7**

*Reported equity level (equitable, under benefited, over benefited) will influence maintenance behavior in friend relationships. Equity will be positively related to maintenance; whereas inequity (either under benefited or over benefited) will be negatively related to maintenance.*

It was theorized that equity would be related to maintenance in friendships. In previous studies, a link between equity and maintenance has been established (Canary & Stafford, 1992, 2000; Messman et al., 2000). Since friendships were considered similar to the other types of relationships where this has been demonstrated, a similar result was expected. It is surprising that this hypothesis is not confirmed.
Equity has been referred to as a key approach to maintenance (Perlman, 2001). It is troubling that this framework was not successfully applied to the participants of this study. It was predicted that equity would be pertinent to friends but not to siblings. The uniqueness of the sibling relationship was expected to be the reason for this exemption.

There are three possibilities. First, perhaps these relationships are both exempt from the regular rules of equity. However this seems unlikely. Equity has been proved to be relevant to other very close relationships. The only reason to expect equity to not apply is the unique aspects of the sibling relationship and these relational features are not shared with siblings.

The second possibility is that equity does have an effect on relationships however the use of different measures has caused the non-significant results in this study. In one study Messsman, Canary, and Hause (2000) showed that equity was associated with maintenance using a single item from Hatfield (1978, as cited in Hatfield et al., 1979). In another study Canary and Stafford (2001) showed that equity was associated with maintenance utilizing an index. This index combined two single item measures one from Sprecher (1986) and one from Hatfield (1978, as cited in Hatfield et al., 1979).

Equity was measured following the example of Canary and Stafford through an index in this study but the indexes differ slightly and as such can not be compared. Responses to the Hatfield measure (1978, as cited in Hatfield et al., 1979) ranged from 1-5 in the original whereas in Canary and Stafford’s (2001) index the scale was anchored between 1 to 7. The index in this study was anchored from 1 to 5. Hence the index in this case is slightly different.

It is difficult to compare the results of each study as in each case a somewhat different measure of equity was used. Possibly the formulation of the index in this study is
not correlated with maintenance while the other might have been. It is not possible to
determine if this is true or not. It was possible to examine whether equity would have been
correlated to maintenance had the single item measure been used as per Messman, Canary,
and Hause (2000); further calculations were performed but equity was still not significantly
related to maintenance.

A third possibility is that equity is related to maintenance but the effect is too weak
to detect with such a small sample. One way to assess the likelihood of this would be to
compare the magnitude of correlations in this study with others to determine if sample size
might be an issue. However, results from the other two studies indicate the results of factor
analyses rather than correlations thus it is difficult to draw conclusions.

**Hypothesis 7b**

This relationship will not be found in sibling relationships

It was theorized that equity would not be related to maintenance in siblingships.
This was expected because siblings differed from the relationships where this link had been
previously established in three key ways: that they have known each other longer, are more
communal, and are in an involuntary relationship.

Since the lack of connection between equity and maintenance was found in
friendships as well the result for siblings is somewhat moot. The idea was to prove that a
unique aspect of sibling relationships is that maintenance of this relationship is immune to
equity level. Instead these two linked hypotheses revealed that equity and maintenance are
not linked in either friendships or siblingships.

This makes sense since the previous hypothesis showed that there was no difference
in how concerned with equity siblings were compared to friends. Since the importance of
equity is similar between relationship types it is reasonable that there be no the impact of
equity upon maintenance be similar.

This final set of linked hypotheses considers whether a path to satisfaction can be identified.

**Hypothesis 8**

Reported equity level (equitable, under benefited, over benefited) will be related to satisfaction; however this relationship will be mediated by maintenance.

Equity is not related to satisfaction while maintenance is; thus the relationship between equity and satisfaction is not mediated. This makes sense since the previous hypothesis showed that equity had no real impact on relationships with siblings and as equity and maintenance are not related a mediating model cannot be demonstrated. Knowing maintenance levels can contribute to predictions of satisfaction levels for friends but equity adds little information.

**Hypothesis 8b**

This relationship will not be reported in sibling relationships.

In this case equity is not related but maintenance is linked to satisfaction. This makes sense since the previous hypothesis showed that equity had no real impact on relationships. As equity and maintenance are not related a mediating model cannot be demonstrated. Knowing maintenance levels can contribute to predictions of satisfaction levels for siblings.

However again, the theory that was the reason for expecting this does not explain the result. The original reasoning for expecting this result was that maintenance would be a mediator in the case of friends and not a mediator in the case of siblings because both equity and maintenance would be of little concern to siblings.

Since mediation is not shown in friendships either the fact that it is not found with siblings is interesting but does not show what was intended in this study. The idea is to
prove that a unique aspect of sibling relationships is that equity's influence on satisfaction is not mediated by maintenance. Instead these two linked hypotheses reveal that mediation does not occur in either friendships or siblingships.

General Conclusions

In this study, interpretation of the data led to three main conclusions. First, that maintenance is important. Second, equity is not relevant to maintenance or satisfaction levels. Third, type of relationship makes little difference to any of the constructs of interest in this study.

Similar to other types of relationships (e.g. dating and marriage, Canary & Stafford, 2001; gay and lesbian couples, Haas & Stafford, 1998) maintenance is very important when satisfaction is considered in siblingships and friendships. Both sibling and friend relationships are impacted by maintenance. In terms of maintenance these types of relationships differ from each other very little. While this result does not support the hypotheses it does conform to past findings of other types of relationships.

Contrary to previous research, equity is of limited significance to satisfaction or maintenance in this study. This is surprising given that many previous studies have demonstrated a link between these variables when other types of relationships were considered.

It was predicted that there would be a profound difference whether a relationship between two siblings or two friends was analyzed. This does not appear to be the case. Type of relationship does not make a large difference in most of the hypotheses. This was unexpected given the theoretical argument advanced throughout this paper.

Alternate Methodological Explanations

There are several possible interpretations of this data that would account for the
results within the expected theoretical framework. Perhaps female siblings are very
different from female friends but this study failed to capture the differences that do exist.
Maybe a questionnaire was not the method to uncover such a difference. Or, the degree of
difference may be very slight and might not be captured by the scales, or not possible to
detect given the somewhat small sample size.

Another issue may be that a different conceptualization of satisfaction was offered in this study compared to previous studies where equity was connected to maintenance. Two studies that demonstrated that equity impacted satisfaction employed control mutuality, trust, liking, and commitment as their constructs for satisfaction (Canary & Stafford, 1992, 1993). Perhaps satisfaction is impacted by equity but the RAS is not an appropriate measure. The RAS is a more general measure of satisfaction perhaps too general to be effected by equity.

Another possible complication may be there is an expectation that women are positive and relationship oriented. Perhaps there is a tendency for women to not express their dissatisfaction about their relationships. Women may be less likely to express their negative feelings because women are expected to be affiliative and not share their hostility (Gaelick, Bodenhausen & Wyer, 1985). This expectation may be very strongly felt about close relationships. Participants may have been reluctant to indicate their negative feelings about fairness and satisfaction.

Alternate Theoretical Frameworks

It may be that the theoretical framework advanced throughout this study was incorrect. Alternate frameworks may be able to account for the findings produced through this research.

In initially reviewing responses to the open ended questions, where participants
offered examples of maintenance behaviors in their relationships, a theme was apparent in friendships of considering a friend as a "sister". It seems many women's closest female friends become so much like a sister (i.e. fictive kin) that young people might not distinguish between them, at least in terms of the variables that were of interest in this study. Perhaps the problem is that these relationships are essentially the same and should not have been compared to each other.

If women's closest friends are essentially their "sisters" are the results of this study more understandable in terms of the theoretical argument offered previously? It would mean that the fact that equity was not really relevant in either type of relationship would not be unexpected given the hypotheses. But maintenance, in contrast to all the arguments and predictions that were offered, was important. Hence, this new explanation, while a possibility, does not account for all of the findings of this study.

It is possible that the theory that formed the basis for this study was flawed and that the hypotheses generated were misguided. Maybe no differences exist between female siblings and female friends. It may be that women act the same with their friends and sisters as they do in any number of different relationship types.

Maybe the relationships are different but maintenance is universal. It seems that no matter what the type of relationship people cannot excuse themselves from maintaining their relationships. Perhaps maintenance is a given in all satisfying relationships.

There are two choices. Either, women see siblings and friends as the same, so they make the same choices about maintenance or, alternately women recognize their siblings and friends as very different, but they make the same choices about maintenance. It is difficult to say which case is correct.
Unique Properties and Strengths

This study looks at two types of close relationships that have been studied less than other types have. Few, if any, studies have attended to satisfaction in close relationships of young people, especially those between siblings and friends. This study attempted to replicate research about maintenance and satisfaction that has been conducted with other types of relationships to investigate whether the key variables would be similar or not.

Limitations, Implications, and Future Directions

The fact that this study is limited to women’s relationships is a key limitation. Future studies should explore men’s relationships with their brothers and male friends as well as exploring mixed gender sibling and friend relationships.

In addition, the sample from which participants are recruited should be more varied. In studies such as this is it understandable that participants come from a convenience sample. Ideally the sample would not be limited to 18 to 25 year-old university students but would include young people who work, who attend colleges or trade schools, who are unemployed and so forth. At the minimum future studies could draw a broader group of participants from various faculties and majors rather than Family Studies only.

As well, a thorough examination of the responses to the open ended questions about maintenance collected with this survey should be conducted. There is a lot of information to be uncovered through these responses that could contribute to the maintenance literature and aid in the development of scale that has been specifically adapted to apply to either the sibling or friend relationship.

Future studies might also look at maintenance as it occurs. In this study participants indicated how often they engaged in particular maintenance behaviors. However observing
this maintenance in context might contribute to a greater understanding of maintenance. As Canary and Stafford (1994) suggest such observational research would help reveal where and when people use each strategy.

Another direction that maintenance research should move into is a practical realm. Canary and Stafford (1994) have recommended that there are useful ways the information about maintenance might be utilized. If certain actions contribute to maintenance of relationships, and maintenance is positively correlated with satisfaction, should people not be encouraged to take those actions in their relationship? Of course this is a complicated transition from survey research to recommendations of behavior. However, this is a worthwhile development to aim towards. To have more satisfying relationships with friends and siblings is a goal many people would share. Any advice that might contribute to this would be looked upon favorably.

A good relationship with a sibling is precious. Considering that family size may continue to grow smaller than it has been in previous cohorts the sibling relationship may become even more precious. In previous generations when an individual might have several siblings there was a greater chance that one of these relationships might be close. However, as younger people are more likely to have fewer siblings they have a smaller chance to get it right by having a positive fulfilling relationship with a sibling. If variables associated with satisfaction are more understood, what makes some relationships successful can be determined, and this knowledge might be used in a practical manner to help people to have closer relationships.

In the end, the most important finding from this research is that the small things women do for their siblings and friends add up. The more women do the more satisfied they are. Greater maintenance is associated with greater satisfaction. Some of the maintenance
behaviors seem inconsequential yet they are not. The simple day-to-day behaviors add up.
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*Academy of Management Journal, 43,* 101-112.


Appendix A

Sibling and Friend Questionnaires

Sibling Version

UBC Letterhead

September 28, 2001
University of British Columbia
School of Social Work and Family Studies
2080 West Mall
Vancouver, B.C. Canada V6T 1Z2
Tel: (604) 822-8656

Informed Consent Form

Close Relationship Path Study
Principal Investigator:
Dr. D. Perlman (604) 822-6138, School of Social Work and Family Studies
Co-Investigator:
J. Sundstrom, (604) 822-6138, School of Social Work and Family Studies

Purpose of study:
The goal of this study is to further understanding of close relationships. Of interest are the different paths possible between different types of close relationships. This study is undertaken in order for J. Sundstrom to complete her graduate degree in Family Studies and will be the subject of her thesis.

Procedures:
This study requires approximately less than one hour. You will be asked to reflect about a close relationship and fill out the questionnaire. The questionnaire examines equity, relationship maintenance behaviors, communal norms and satisfaction. The questionnaires will be distributed during your class period and will be collected at the beginning of the following four classes. Only women who have a sister are eligible to participate in this study.

It is not expected that any of the content of this questionnaire will cause upset. It is unlikely that this study will cause distress but, if at any time this is the case, please do not hesitate to withdraw your participation.

On the other hand, there are benefits to participation in this study. This is an opportunity to familiarize your self with research conducted by questionnaire. As well, this may encourage self-reflection that leads to a greater understanding of one of your close relationships.

Confidentiality:
All responses are absolutely confidential and will only be available to the two investigators. You will not be asked to identify yourself except by indicating your age and gender thus all questionnaires will be free of identifying information. Still, data will be stored in a locked office when not in the presence of one of the investigators. At the conclusion of this study the Co-Investigator will shred the questionnaires.
Contacts
A copy of the study will be available from the Department of Social Work & Family Studies reading room once completed for your review, should you be interested. If you have any questions about this study please contact Dr. D. Perlman at (604) 822-6138. If you have any issues with your treatment as a research participant you may contact Dr. R. Spratley, Director of Research Services at (604) 822-8598.

Consent
Participation is entirely voluntary. There are no consequences for refusal to participate. There will be absolutely no impact on your grades, class, or university standing. You may refuse to participate at any time during the study.

Returning the completed questionnaire indicates your consent to participate. Thank you for your interest.
This questionnaire is concerned with your relationship with one of your siblings. Each question asks you to rate how much different behaviors and feelings occur in your relationship. Try and answer each question as quickly and accurately as you can. Try and answer the questions as your relationship is now, not how it was in past, nor how you think it will be in the future.

In order to start please choose the one female sibling you have the closest and most significant relationship with (this is the sibling you interact with frequently, you know well, and has the greatest impact on you) and answer the questions that follow with them in mind.

In the remainder of this questionnaire, whenever you see “sibling” we are talking about the specific sibling you are completing this study about. We begin by asking you some general questions about your sibling and yourself. Please fill in, check, or circle the correct response.

Your age: ____

You are: 1) firstborn 2) second born 3) third born 4) fourth born 5) later born

This sibling’s age: ____

This sibling is: 1) firstborn 2) second born 3) third born 4) fourth born 5) later born

SECTION ONE
How far does this sibling live from you?
___ 1) same house
___ 2) same city
___ 3) different city, but less than 100 km
___ 4) between 100 & 200 km
___ 5) between 200 & 500 km
___ 6) between 500 & 1000 km
___ 7) more than 1000 km

How much do you and this sibling see each other?
___ 1) hardly at all
___ 2) a little
___ 3) somewhat
___ 4) very much
___ 5) extremely much

How much does this sibling phone you?
___ 1) hardly at all
___ 2) a little
___ 3) somewhat
___ 4) very much
___ 5) extremely much
How much do you phone this sibling?
___ 1) hardly at all       ___ 4) very much
___ 2) a little           ___ 5) extremely much
___ 3) somewhat

How much do you and this sibling see each other for holidays and family gatherings?
___ 1) hardly at all       ___ 4) very much
___ 2) a little           ___ 5) extremely much
___ 3) somewhat

What is your relationship to this sibling?
___ 1) biological sibling ___ 2) twin
___ 4) half sibling       ___ 3) step sibling
___ 5) other (please explain) ________________

How many years have you known this person? __________

We would like some information about your other siblings as well as the one you are going to tell us about.

<table>
<thead>
<tr>
<th>Sib #1</th>
<th>M</th>
<th>F</th>
<th>age</th>
<th>gender relationship (bio/step/twin, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sib #2</td>
<td>M</td>
<td>F</td>
<td>age</td>
<td>gender relationship (bio/step/twin, etc.)</td>
</tr>
<tr>
<td>Sib #3</td>
<td>M</td>
<td>F</td>
<td>age</td>
<td>gender relationship (bio/step/twin, etc.)</td>
</tr>
<tr>
<td>Sib #4</td>
<td>M</td>
<td>F</td>
<td>age</td>
<td>gender relationship (bio/step/twin, etc.)</td>
</tr>
<tr>
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<td>M</td>
<td>F</td>
<td>age</td>
<td>gender relationship (bio/step/twin, etc.)</td>
</tr>
<tr>
<td>Sib #6</td>
<td>M</td>
<td>F</td>
<td>age</td>
<td>gender relationship (bio/step/twin, etc.)</td>
</tr>
<tr>
<td>Sib #7</td>
<td>M</td>
<td>F</td>
<td>age</td>
<td>gender relationship (bio/step/twin, etc.)</td>
</tr>
<tr>
<td>Sib #8</td>
<td>M</td>
<td>F</td>
<td>age</td>
<td>gender relationship (bio/step/twin, etc.)</td>
</tr>
</tbody>
</table>

Please put a check beside the sibling who is the one you have chosen to report on in this study.

SECTION TWO
Considering what you put into your relationship with your sibling, compared to what you get out of it... and what your sibling puts in, compared to what she gets out of it, how would you say your relationship "stacks up"? Check the box that best reflects your perception of this.

___ I am getting a much better deal than my sibling
___ I am getting a somewhat better deal
___ I am getting a slightly better deal
___ We are both getting an equally good... or bad... deal
___ My sibling is getting a slightly better deal
___ My sibling is getting a somewhat better deal
___ My sibling is getting a much better deal than I am
SECTION THREE
How important is it to you that you and your sibling are equally rewarded in this relationship?
Circle the response that best reflects your opinion.

(It is very unimportant) 1 2 3 4 5  (It is very important)

SECTION FOUR
Please offer examples of behaviors (positive and/or negative) that you have used to maintain your relationship with your sibling.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Much of maintaining a relationship can involve mundane or routine aspects of day-to-day life. These are things you might not have thought of above because they might seem too trivial. Please try to describe the routine things you do to maintain your relationship.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

SECTION FIVE
Keeping your relationship with this sibling in mind, answer the following questions by circling a number.

1. How well does your sibling meet your needs?
   very well 1 2 3 4 5 not very well

2. In general, how satisfied are you with your relationship?
   very satisfied 1 2 3 4 5 not very satisfied

3. How good is your relationship compared to most?
   very good 1 3 3 4 5 not very good
4. How often do you wish you hadn't gotten into this relationship?

very often 1 2 3 4 5 not very often

5. To what extent has your relationship met your expectations?

great extent 1 2 3 4 5 low extent

6. How much do you love your sibling?

very much 1 2 3 4 5 not very much

7. How many problems are there in your relationship?

very many 1 2 3 4 5 not very many

SECTION SIX
Indicate the extent to which each of the following statements accurately reflects the way that you maintain your relationship with your sibling by circling the appropriate number. Do not indicate agreement with things you did at one time but no longer do. That is, think about the everyday things you actually do in your relationship right now. Remember that much of what you do to maintain your relationship can involve mundane or routine aspects of day-to-day life.

1. I say "I love you".

strongly disagree 1 2 3 4 5 6 7 strongly agree

2. I show my love for my sibling.

strongly disagree 1 2 3 4 5 6 7 strongly agree

3. I imply that our relationship has a future.

strongly disagree 1 2 3 4 5 6 7 strongly agree

4. I tell my sibling how much she means to me.

strongly disagree 1 2 3 4 5 6 7 strongly agree

5. I talk about our plans for the future.

strongly disagree 1 2 3 4 5 6 7 strongly agree

6. I stress my commitment to her.

strongly disagree 1 2 3 4 5 6 7 strongly agree
7. I show her how much she means to me.

strongly disagree 1 2 3 4 5 6 7 strongly agree

8. I talk about future events

strongly disagree 1 2 3 4 5 6 7 strongly agree

9. I encourage my sibling to share her feelings with me.

strongly disagree 1 2 3 4 5 6 7 strongly agree

10. I simply tell my sibling how I feel about the relationship.

strongly disagree 1 2 3 4 5 6 7 strongly agree

11. I talk about my fears.

strongly disagree 1 2 3 4 5 6 7 strongly agree

12. I disclose what I need or want from the relationship.

strongly disagree 1 2 3 4 5 6 7 strongly agree

13. I like to have periodic talks about our relationship.

strongly disagree 1 2 3 4 5 6 7 strongly agree


strongly disagree 1 2 3 4 5 6 7 strongly agree

15. I talk about where we stand.

strongly disagree 1 2 3 4 5 6 7 strongly agree

16. I apologize when I am wrong.

strongly disagree 1 2 3 4 5 6 7 strongly agree

17. I co-operate in how I handle disagreements.

strongly disagree 1 2 3 4 5 6 7 strongly agree

18. I listen to my sibling and try not to judge.

strongly disagree 1 2 3 4 5 6 7 strongly agree
19. I am understanding.
strongly disagree  1  2  3  4  5  6  7 strongly agree

20. I am patient and forgiving with my sibling.
strongly disagree  1  2  3  4  5  6  7 strongly agree

21. I help equally with the tasks that need to be done.
strongly disagree  1  2  3  4  5  6  7 strongly agree

22. I offer to do things that aren't "my" responsibility.
strongly disagree  1  2  3  4  5  6  7 strongly agree

23. I do my fair share of the work we have to do.
strongly disagree  1  2  3  4  5  6  7 strongly agree

24. I do not shirk my duties.
strongly disagree  1  2  3  4  5  6  7 strongly agree

25. I act cheerful positive around her.
strongly disagree  1  2  3  4  5  6  7 strongly agree

26. I try to be upbeat when we are together.
strongly disagree  1  2  3  4  5  6  7 strongly agree

27. I tell my sibling what I think she should do about her problems.
strongly disagree  1  2  3  4  5  6  7 strongly agree

28. I give him/her my opinion on things going on in her life.
strongly disagree  1  2  3  4  5  6  7 strongly agree

29. I like to spend time with our same friends.
strongly disagree  1  2  3  4  5  6  7 strongly agree
30. I focus on common friends and affiliations.

strongly disagree 1 2 3 4 5 6 7 strongly agree

31. I attempt to make our interactions very enjoyable

strongly disagree 1 2 3 4 5 6 7 strongly agree

32. I try to build up their self-esteem, including giving compliments, etc.

strongly disagree 1 2 3 4 5 6 7 strongly agree

33. I ask how their day has gone

strongly disagree 1 2 3 4 5 6 7 strongly agree

34. I am very nice, courteous and polite when we talk

strongly disagree 1 2 3 4 5 6 7 strongly agree

35. I do not criticize them

strongly disagree 1 2 3 4 5 6 7 strongly agree

36. I try to be fun and interesting with them

strongly disagree 1 2 3 4 5 6 7 strongly agree

37. I present myself as cheerful and optimistic

strongly disagree 1 2 3 4 5 6 7 strongly agree

38. I seek to discuss the quality of our relationship

strongly disagree 1 2 3 4 5 6 7 strongly agree

39. I remind my sibling about our relationship decisions we made in the past (e.g. to maintain the same level of intimacy)

strongly disagree 1 2 3 4 5 6 7 strongly agree

40. I share in joint responsibilities that face us

strongly disagree 1 2 3 4 5 6 7 strongly agree
41. I encourage them to disclose their thoughts and feelings to me.

<table>
<thead>
<tr>
<th>strongly disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>strongly agree</th>
</tr>
</thead>
</table>

42. I show myself to be faithful to them.

<table>
<thead>
<tr>
<th>strongly disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>strongly agree</th>
</tr>
</thead>
</table>

43. I show that I am willing to do things with her friends and family.

<table>
<thead>
<tr>
<th>strongly disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>strongly agree</th>
</tr>
</thead>
</table>

44. I include their friends or family in our activities.

<table>
<thead>
<tr>
<th>strongly disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>strongly agree</th>
</tr>
</thead>
</table>

45. I do my fair share of the work we have to do.

<table>
<thead>
<tr>
<th>strongly disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>strongly agree</th>
</tr>
</thead>
</table>

46. I perform my responsibilities

<table>
<thead>
<tr>
<th>strongly disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>strongly agree</th>
</tr>
</thead>
</table>

SECTION SEVEN

Keeping in mind the specific sibling that you selected, answer the following questions. Circle one answer for each question on the scale from 0 (Not at all) to 10 (Extremely) before going on to the next question.

1. How far would you be willing to go to visit _____?

Not at all                                 extremely

0 1 2 3 4 5 6 7 8 9 10

2. How happy do you feel when you do something that helps _____?

Not at all                                 extremely

3. How large a benefit would you be likely to give _____?

Not at all                                 extremely

0 1 2 3 4 5 6 7 8 9 10

4. How large a cost would you incur to meet a need of _____?

Not at all                                 extremely

0 1 2 3 4 5 6 7 8 9 10
5. How readily can you put the needs of _____ out of your thoughts?

Not at all  
0 1 2 3 4 5 6 7 8 9 10  extremely

6. How high a priority for you is meeting the needs of _____?

Not at all  
0 1 2 3 4 5 6 7 8 9 10  extremely

7. How reluctant would you be to sacrifice for _____?

Not at all  
0 1 2 3 4 5 6 7 8 9 10  extremely

8. How much would you be willing to sacrifice for _____?

Not at all  
0 1 2 3 4 5 6 7 8 9 10  extremely

9. How far would you go to out of your way to do something for _____?

Not at all  
0 1 2 3 4 5 6 7 8 9 10  extremely

10. How easily could you accept not helping _____?

Not at all  
0 1 2 3 4 5 6 7 8 9 10  extremely
SECTION EIGHT
Reflect upon the following question and circle the response that best reflects your perception of your relationship with your sibling.
Consider all the times when the exchange in your relationship has become unbalanced and one partner contributed more than the other for a time. When your relationship becomes unbalanced, which of you is more likely to be the one to contribute more?

My sibling is much more likely to be the one to contribute more.
I am much more likely to be the one to contribute more.

1  2  3  4  5  6  7

SECTION NINE
Were you born in Canada?
_____Yes  _____No (if no, please answer the next question)

At which age did you immigrate or move to Canada? _______

In addition to being Canadian, to which ethnic group do you feel you belong?
_____ 2. Arab  _____ 15. Korean
_____  4. Dutch  _____ 17. Pakistani
_____  5. English  _____ 18. Polish
_____  7. German  _____ 20. Russian
_____  8. Greek  _____ 21. Scottish
_____  9. Indian (India)  _____ 22. Ukrainian
____  10. Iranian  _____ 23. Vietnamese
____  11. Irish  _____ 24. West Indian
____  12. Italian  _____ 25. Other (please specify)_______
____  13. Japanese
Informed Consent Form
Close Relationship Path Study

Principal Investigator:
Dr. D. Perlman (604) 822-6138, School of Social Work and Family Studies
Co-Investigator:
J. Sundstrom, (604) 822-6138, School of Social Work and Family Studies

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Returning the completed questionnaire indicates your consent to participate. Thank you for your interest.
This questionnaire is concerned with your relationship with one of your friends. Each question asks you to rate how much different behaviors and feelings occur in your relationship. Try and answer each question as quickly and accurately as you can. Try and answer the questions as your relationship is now, not how it was in past, nor how you think it will be in the future.

In order to start please choose the one female friend you have the closest and most significant relationship (this is the friend you interact with frequently, you know well, and has the greatest impact on you) and answer the questions that follow with them in mind.

In the remainder of this questionnaire, whenever you see “friend” we are talking about the specific friend you are completing this study about. We begin by asking you some general questions about your friend and yourself. Please fill in, check, or circle the correct response.

Your age: ___
You are: 1) first born 2) second born 3) third born 4) fourth born 5) later born

This friend’s age: ___

SECTION ONE
How far does this friend live from you?
___ 1) same house 5) between 200 & 500 km
___ 2) same city 6) between 500 & 1000 km
___ 3) different city, but less than 100 km 7) more than 1000 km
___ 4) between 100 & 200 km

How much do you and this friend see each other?
___ 1) hardly at all 4) very much
___ 2) a little 5) extremely much
___ 3) somewhat

How much does this friend phone you?
___ 1) hardly at all 4) very much
___ 2) a little 5) extremely much
___ 3) somewhat

How much do you phone this friend?
___ 1) hardly at all 4) very much
___ 2) a little 5) extremely much
___ 3) somewhat

How much do you and this sibling see each other for holidays and family gatherings?
___ 1) hardly at all 4) very much
___ 2) a little 5) extremely much
___ 3) somewhat
How many years have you known this person? __________

We would like some information about your siblings as well.

<table>
<thead>
<tr>
<th>Sib #</th>
<th>Age</th>
<th>Gender</th>
<th>Relationship (bio/step/twin, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>___</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>#2</td>
<td>___</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>#3</td>
<td>___</td>
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<tr>
<td>#4</td>
<td>___</td>
<td>M</td>
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<td>#5</td>
<td>___</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>#6</td>
<td>___</td>
<td>M</td>
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<td>___</td>
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</tr>
<tr>
<td>#8</td>
<td>___</td>
<td>M</td>
<td>F</td>
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</tbody>
</table>

SECTION TWO

Considering what you put into your relationship with your friend, compared to what you get out of it... and what your friend puts in, compared to what s/he gets out of it, how would you say your relationship "stacks up"? Check the box that best reflects your perception of this.

___ I am getting a much better deal than my friend
___ I am getting a somewhat better deal
___ I am getting a slightly better deal
___ We are both getting an equally good... or bad... deal
___ My friend is getting a slightly better deal
___ My friend is getting a somewhat better deal
___ My friend is getting a much better deal than I am

SECTION THREE

How important is it to you that you and your friend are equally rewarded in this relationship?
Circle the response that best reflects your opinion.

(It is very unimportant)  1  2  3  4  5  (It is very important)
SECTION FOUR
Please offer examples of behaviors (positive and/or negative) that you have used to maintain your relationship with your friend.

Much of maintaining a relationship can involve mundane or routine aspects of day-to-day life. These are things you might not have thought of above because they might seem too trivial. Please try to describe the routine things you do to maintain your relationship.

SECTION FIVE
Keeping your relationship with this friend in mind, answer the following questions by circling a number.

1. How well does your friend meet your needs?
   - very well
   - 1 2 3 4 5
   - not very well

2. In general, how satisfied are you with your relationship?
   - very satisfied
   - 1 2 3 4 5
   - not very satisfied

3. How good is your relationship compared to most?
   - very good
   - 1 3 3 4 5
   - not very good

4. How often do you wish you hadn't gotten into this relationship?
   - very often
   - 1 2 3 4 5
   - not very often

5. To what extent has your relationship met your expectations?
   - great extent
   - 1 2 3 4 5
   - low extent
6. How much do you love your friend?

very much  1  2  3  4  5  not very much

7. How many problems are there in your relationship?

very many  1  2  3  4  5  not very many

SECTION SIX
Indicate the extent to which each of the following statements accurately reflects the way that you maintain your relationship with your friend by circling the appropriate number. Do not indicate agreement with things you did at one time but no longer do. That is, think about the everyday things you actually do in your relationship right now. Remember that much of what you do to maintain your relationship can involve mundane or routine aspects of day-to-day life.

1. I say "I love you".

strongly disagree  1  2  3  4  5  6  7 strongly agree

2. I show my love for my friend.

strongly disagree  1  2  3  4  5  6  7 strongly agree

3. I imply that our relationship has a future.

strongly disagree  1  2  3  4  5  6  7 strongly agree

4. I tell my friend how much she means to me.

strongly disagree  1  2  3  4  5  6  7 strongly agree

5. I talk about our plans for the future.

strongly disagree  1  2  3  4  5  6  7 strongly agree

6. I stress my commitment to her.

strongly disagree  1  2  3  4  5  6  7 strongly agree

7. I show her how much she means to me.

strongly disagree  1  2  3  4  5  6  7 strongly agree

8. I talk about future events
9. I encourage my friend to share her feelings with me.

strongly disagree 1 2 3 4 5 6 7 strongly agree

10. I simply tell my friend how I feel about the relationship.

strongly disagree 1 2 3 4 5 6 7 strongly agree

11. I talk about my fears.

strongly disagree 1 2 3 4 5 6 7 strongly agree

12. I disclose what I need or want from the relationship.

strongly disagree 1 2 3 4 5 6 7 strongly agree

13. I like to have periodic talks about our relationship.

strongly disagree 1 2 3 4 5 6 7 strongly agree


strongly disagree 1 2 3 4 5 6 7 strongly agree

15. I talk about where we stand.

strongly disagree 1 2 3 4 5 6 7 strongly agree

16. I apologize when I am wrong.

strongly disagree 1 2 3 4 5 6 7 strongly agree

17. I co-operate in how I handle disagreements.

strongly disagree 1 2 3 4 5 6 7 strongly agree

18. I listen to my friend and try not to judge.

strongly disagree 1 2 3 4 5 6 7 strongly agree
19. I am understanding.

strongly disagree 1 2 3 4 5 6

7 strongly agree

20. I am patient and forgiving with my friend.

strongly disagree 1 2 3 4 5 6

7 strongly agree

21. I help equally with the tasks that need to be done.

strongly disagree 1 2 3 4 5 6

7 strongly agree

22. I offer to do things that aren't "my" responsibility.

strongly disagree 1 2 3 4 5 6

7 strongly agree

23. I do my fair share of the work we have to do.

strongly disagree 1 2 3 4 5 6

7 strongly agree

24. I do not shirk my duties.

strongly disagree 1 2 3 4 5 6

7 strongly agree

25. I act cheerful positive around him/her.

strongly disagree 1 2 3 4 5 6

7 strongly agree

26. I try to be upbeat when we are together.

strongly disagree 1 2 3 4 5 6

7 strongly agree

27. I tell my friend what I think she should do about her problems.

strongly disagree 1 2 3 4 5 6

7 strongly agree

28. I give her my opinion on things going on in her life.

strongly disagree 1 2 3 4 5 6

7 strongly agree

29. I like to spend time with our same friends.

strongly disagree 1 2 3 4 5 6

7 strongly agree
30. I focus on common friends and affiliations.

strongly disagree 1 2 3 4 5 6 7 strongly agree

31. I attempt to make our interactions very enjoyable

strongly disagree 1 2 3 4 5 6 7 strongly agree

32. I try to build up their self-esteem, including giving compliments, etc.

strongly disagree 1 2 3 4 5 6 7 strongly agree

33. I ask how their day has gone

strongly disagree 1 2 3 4 5 6 7 strongly agree

34. I am very nice, courteous and polite when we talk

strongly disagree 1 2 3 4 5 6 7 strongly agree

35. I do not criticize them

strongly disagree 1 2 3 4 5 6 7 strongly agree

36. I try to be fun and interesting with them

strongly disagree 1 2 3 4 5 6 7 strongly agree

37. I present my self as cheerful and optimistic

strongly disagree 1 2 3 4 5 6 7 strongly agree

38. I seek to discuss the quality of our relationship

strongly disagree 1 2 3 4 5 6 7 strongly agree

39. I remind my friend about our relationship decisions we made in the past (e.g. to maintain the same level of intimacy)

strongly disagree 1 2 3 4 5 6 7 strongly agree

40. I share in joint responsibilities that face us

strongly disagree 1 2 3 4 5 6 7 strongly agree
41. I encourage them to disclose their thoughts and feelings to me.

strongly disagree  1  2  3  4  5  6  7 strongly agree

42. I show myself to be faithful to them.

strongly disagree  1  2  3  4  5  6  7 strongly agree

43. I show that I am willing to do things with his/her friends and family.

strongly disagree  1  2  3  4  5  6  7 strongly agree

44. I include their friends or family in our activities.

strongly disagree  1  2  3  4  5  6  7 strongly agree

45. I do my fair share of the work we have to do.

strongly disagree  1  2  3  4  5  6  7 strongly agree

46. I perform my responsibilities

strongly disagree  1  2  3  4  5  6  7 strongly agree

SECTION SEVEN
Keeping in mind the specific friend that you selected, answer the following questions. Circle one answer for each question on the scale from 0 (Not at all) to 10 (Extremely) before going on to the next question.

1. How far would you be willing to go to visit _____?

Not at all  extremely

0  1  2  3  4  5  6  7  8  9  10

2. How happy do you feel when you do something that helps _____?

Not at all  extremely

0  1  2  3  4  5  6  7  8  9  10

3. How large a benefit would you be likely to give _____?

Not at all  extremely

0  1  2  3  4  5  6  7  8  9  10
4. How large a cost would you incur to meet a need of ____?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>extremely</th>
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<tbody>
<tr>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
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</table>

5. How readily can you put the needs of ____ out of your thoughts?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>extremely</th>
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<tbody>
<tr>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
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</tbody>
</table>

6. How high a priority for you is meeting the needs of ____?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
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</table>

7. How reluctant would you be to sacrifice for ____?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>extremely</th>
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</thead>
<tbody>
<tr>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
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</table>

8. How much would you be willing to sacrifice for ____?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>extremely</th>
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<tbody>
<tr>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
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</tbody>
</table>

9. How far would you go to out of your way to do something for ____?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
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</table>

10. How easily could you accept not helping ____?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>extremely</th>
</tr>
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<tbody>
<tr>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
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</table>
SECTION EIGHT

Reflect upon the following question and circle the response that best reflects your perception of your relationship with your friend.

Consider all the times when the exchange in your relationship has become unbalanced and one partner contributed more than the other for a time. When your relationship becomes unbalanced, which of you is more likely to be the one to contribute more?

My friend is much more likely to be the one to contribute more

I am much more likely to be the one to contribute more

1 2 3 4 5 6 7

SECTION NINE

Were you born in Canada?

_____ Yes  _____ No (if no, please answer the next question)

At which age did you immigrate or move to Canada? _______

In addition to being Canadian, to which ethnic group do you feel you belong?

_____ 2. Arab  _____ 15. Korean
_____ 4. Dutch  _____ 17. Pakistani
_____ 5. English  _____ 18. Polish
_____ 7. German  _____ 20. Russian
_____ 8. Greek  _____ 21. Scottish
_____ 9. Indian (India)  _____ 22. Ukrainian
____ 10. Iranian  _____ 23. Vietnamese
_____ 11. Irish  _____ 24. West Indian
_____ 12. Italian  _____ 25. Other (please specify) _____
_____ 13. Japanese
**Table 1b**  
**Mean Scores on Maintenance Factors by Relationship Type**

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Table 2b
MANOVA for Maintenance Factor by Relationship Type

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