CHARTING THE TERRITORY OF CROSS-GENDER FRIENDSHIP:

CONCEPTIONS OF FRIENDSHIP AND THE SELECTION OF FRIENDS

by

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Abstract

To date, cross-gender friendships in childhood and adolescence have been virtually ignored in the peer relationships literature. The purpose of the present investigation was to chart the territory of cross-gender friendship by examining the domains of friendship conceptions and the selection of friends. Accordingly, 176 students (91 girls, 85 boys) in grades 3, 6, 9, and 12 participated in individual sessions and were asked to describe their beliefs about, and expectations for, both same- and cross-gender friendship. In addition, students participated in a hypothetical decision-making task using a series of information boards on which they were asked to search for, and select, a same- and cross-gender friend. Findings revealed that beliefs and expectations for both same- and cross-gender friendships were observed to follow a common developmental sequence with little evidence that cross-gender friendships lag behind. Although the pattern of gender differences in conceptions of cross-gender friendship was consistent with previous research, the results of this study suggest that for several features of friendship, participants made distinctions on the basis of what is expected in friendships involving girls versus boys. The differential emphasis placed on various expectations in friendship provides support for the notion that same- and cross-gender friendships may represent different types of personal relationships. As compared to conceptions of friendship, observations in the friendship selection task revealed that students engaged in similar predecisional searching regardless of the gender of the target friend. Findings suggest that the process of same- and cross-gender friendship selection was somewhat different at different grade levels but did not vary markedly for boys and girls. Indeed, boys and girls at all ages were observed to select same- and cross-gender friends who were highly similar to themselves. The present discussion concludes with a description of the cross-gender friendship experiences of children and adolescents in this sample including consideration of the potential challenges and benefits associated with having a friend of the other gender.

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There is a well-documented history of the important role that peers play in the social, emotional and interpersonal development of children and adolescents. Indeed, what began as a series of theoretical arguments regarding the critical role of peers in childhood (e.g., Piaget, 1932/1965, Sullivan, 1953) has been consistently supported by a substantial number of empirical investigations conducted over the last several decades (see Savin-Williams & Berndt, 1990; Hartup, 1983; Rubin, Bukowski, & Parker, 1997 for reviews). One particularly important relationship defined in this literature is friendship. Friendship is a relationship which, among other things, is believed to increase the individual's sense of self-worth by providing a sense of affection, intimacy and a reliable alliance (Furman & Robbins, 1985; Sullivan, 1953). A very clear picture of the relationship between having a friend, the positive features of friendship (e.g., intimacy), and their strong connections to psychological, social and academic adjustment outcomes is documented in the extant literature (e.g., Berndt, 1989; Berndt, 1996; Claes, 1992; Mannarino, 1978; McDougall, Hymel, & Deep, 1993; McGuire & Weisz, 1982; Newcomb & Bagwell, 1995; Newcomb & Bagwell, 1996; Parker & Asher, 1993; Reisman, 1990). Yet, with little exception, our knowledge of friendship has been limited to a consideration of same-gender relationships (Berndt & Perry, 1990; Hartup, 1983; Savin-Williams & Berndt, 1990).

The development of cross-gender friendship is virtually uncharted territory and has been all but ignored in the peer relationship literature (Cohen, D'Heurle, & Widmark-Petersson, 1980; Smith & Inder, 1990). Moreover, to date, when cross-gender friendships are discussed they are often talked about primarily from a perspective of "dating opportunities" (Sternberg & Grajek, 1984), or the adolescent's emerging need to express sexuality (Sullivan, 1953). As Furman points out (Furman, 1993; Furman & Wehner, 1994), researchers have generally failed to differentiate between "platonic" and "romantic" relationships (e.g., Blyth, Hill, & Smith Thiel, 1982; Claes, 1992; Crockett, Losoff, & Petersen, 1984; Sharabany, Gershoni, & Hofman,

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1981). Indeed, some researchers have gone so far as to contend that "the adolescent boy-girl friendship for the most part presupposes love or infatuation" (Kon, 1981, p. 199).

It can be argued that the dating perspective is far too limiting and that cross-gender friendships may play a unique role in the development of identity, altruism and empathy in adolescence (Savin-Williams & Berndt, 1990). In fact, it has been suggested that cross-gender friendships may in fact provide a context in which individuals are exposed to different perspectives or ways of viewing the world (e.g., separate male and female perspectives that arise as a function of differences in values and interests)(Dweck, 1981). Further, the experience of cross-gender interactions may promote flexibility in thinking as boys and girls learn how to relate effectively to each other (Smith & Inder, 1990). If we are to fully understand the role of friendship in socio-emotional adjustment, we must begin to explore how the development of cross-gender friendships may be similar to, and/or different from, what has been observed in same-gender friendships. In the present investigation two areas of friendship development were identified as important for the purpose of understanding the foundations of cross-gender friendship. These areas include friendship conceptions (e.g., expectations) and friendship selection.

In laying the groundwork for the study of cross-gender friendship conceptions the present dissertation begins with an outline of the relevant theoretical and empirical background in children's friendships, followed by a consideration of how boys and girls may have very different social experiences in childhood. Next, the relevant friendship conception literature is reviewed with special consideration as to how these findings might be applied to cross-gender friendships. As a final component, several related studies in the area of cross-gender friendship are reviewed for the purpose of informing the present investigation. Turning next to the investigation of cross-gender friendship selection, the role of interpersonal attraction and similarity in the selection of friends is considered. A developmental model of same-gender friendship selection is reviewed

followed by an examination of how the selection of friends can be viewed as a decision-making process. The final section of the present introduction and review includes the statement of the problem and overview of the design.

Theoretical Background to Friendship

The writings of Piaget (1932/1965) and Sullivan (1953) have had an important influence on how we understand the links between friendship and development. Piaget (1932/1965), for example, contended that children's peer relationships are marked by a unique sense of equity that is not present in their interactions with adults. Specifically, within the context of "unilateral" relationships with adults, rules of interaction are generated by adults with no input from children. In contrast, Piaget argued that within the context of a reciprocal and equal peer relationship, children are afforded the opportunity to mutually construct rules or procedures (and later principles) of interaction through experiences like conversation and debate. Whereas Piaget spoke of peer interactions in general, subsequent theory highlighted the importance of friendship in child development.

To date, the most influential friendship theorist has been Harry Stack Sullivan (1953) who argued that friendship provides the unique context in which children might experience validation of their sense of self-worth, broaden their understanding of social reality, increase self-understanding and correct any illusions of uniqueness (thought to be maladaptive in adulthood). Sullivan contended that during the preadolescent period (identified as 8 1/2 to 10 years) individuals are faced with a need for interpersonal intimacy which they must satisfy in order to avoid loneliness. It is through this need for interpersonal intimacy that preadolescents develop an interest in a member of the same-gender who becomes a "chum" or "close friend." Sullivan pinpointed this first chumship as the context in which preadolescents develop a sensitivity to the needs of others, merging the "I" and the "you" and experiencing the beginning of "love". This "chumship" was viewed by Sullivan as a true "collaboration" involving two youngsters who were open and sensitive to each other's needs and shared a mutual sense of

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affection and caring. Sullivan advocated that these early "chumships" formed the basis of a prototype that children use throughout their lives in relationships with others. Indeed, following in the footsteps of Sullivan, other writers have further linked these early "chumships" to subsequent romantic relationships (Berndt, 1982; Youniss, 1980) contending that the symmetrical nature of preadolescent friendships provides a suitable foundation (Buhrmester, 1996). Turning to the next developmental period, Sullivan argued that during early adolescence individuals shift their attention to relationships with members of the other gender as they begin to face the challenge of integrating the need for intimacy with a burgeoning "lust dynamism" (e.g., sexual drive).

Given the important influence that Sullivan's writing has had on friendship researchers it may be that the study of cross-gender friendships in preadolescent children has been ignored because of the theoretical emphasis placed on same-gender "chumships" as the source for fulfilling intimacy needs. Literally interpreted, one might be led to believe that Sullivan saw no real purpose in cross-gender friendships during preadolescence (e.g., ages 9 to 12). Further, although the study of cross-gender interactions from early adolescence onward has been slightly more common, platonic friendships and romantic heterosexual relationships have been muddled together creating a lack of clarity. Perhaps the source of some of this confusion rests in Sullivan's theoretical focus on the precarious balance between intimacy and sexuality during adolescence. Sullivan's descriptions led one to question the possibility of "pure" cross-gender friendships and at the very least, one is lead to the conclusion that cross-gender friendships are associated with increased difficulty and complexity. With reference to the need for intimacy and the expression of sexuality, NeoSullivan writers have described the difficulty and complexity of cross-gender friendships as follows: "Sullivan observed that it is usually difficult for young adolescents to establish cross-sex relationships that can fulfill demands of these needs. He describes several 'collisions' among the lust dynamism, the need for intimacy and feelings of personal security that can interfere with forming collaborative heterosexual relationships"

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(Buhrmester & Furman, 1986, p. 51). What is unfortunate, here, is that although Sullivan dealt with what he believes are the challenges of other-gender relationships and suggested that same-gender friendships become a prototype for later other-gender relationships, he did not deal explicitly with the theoretical underpinnings of cross-gender <u>friendship</u>.

In summary, despite the fact that Piaget and Sullivan have contributed much to our understanding of how same-gender peer relationships and friendships promote development, they provide little useful guidance on the issue of cross-gender friendships. Having considered the theoretical underpinnings it may not be surprising that researchers have primarily ignored the cross-gender friendship context. Yet, a lack of theory may not be the only reason why cross-gender friendship has been ignored. Specifically, throughout childhood cross-gender friendships remain in the shadow of friendship experienced with same-gender peers. What follows is a discussion of this overwhelming preference for same-gender peers in childhood.

Gender Segregation in Childhood

Peer interactions in childhood are characterized by a distinct gender segregation that reaches a peak during middle childhood (Belle, 1989; Hartup, 1983; Maccoby, 1988). Although very young children engage in some cross-gender friendships (Maccoby & Jacklin, 1987) the reported frequency of this type of relationship virtually disappears with increasing age (Eder & Hallinan, 1978; Hartup, 1983; Maccoby, 1988), and does not generally resurface until early adolescence (grades 6 to 8) (Buhrmester & Furman, 1987; Sharabany, Gershoni, & Hofman, 1981). Indeed, Gottman (1986) has suggested that during the peak of gender segregation in middle childhood cross-gender friendships appear to "go underground". The existence of gender segregation in childhood is not limited to Western societies and has been observed in a variety of other cultures in which children have the opportunity to select peers from a wide range of candidates (Hartup, 1983; Maccoby, 1988; Whiting & Edwards, 1988). Some have argued that this overwhelming preference for same-gender peers is more about liking

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same-gender peers than disliking peers of the other gender (Bukowski, Gauze, Newcomb, & Hoza, 1993). In contrast, other researchers have documented a linear increase with age in negativity associated with cross-gender peer ratings (Hayden-Thomson, Rubin, & Hymel, 1987), with the sharpest point of increase observed between early and middle childhood.

There is a vast literature describing the structure and consequences of gender segregation. Perhaps the easiest way of delineating these findings is by describing what appear to be two very different "social worlds" or "cultures" (e.g., Dweck, 1981; Tannen, 1990; Thorne, 1986); the world of girls and the world of boys.

The world of girls. To begin, girls have been observed to interact primarily within the context of inclusive small groups, especially dyads (e.g., Eder & Hallinan, 1978; Lever, 1976; Van Brunschot, Zarbatany, & Strang, 1993; Waldrop & Halverson, 1975) in which friendships have been characterized as exclusive and intense (e.g., Eder & Hallinan; Goodwin, 1980; Lever, 1976). During play, girls predominantly engage in activities characterized by cooperation and turn-taking (e.g., Lever, 1976) and a simplicity of structure (e.g., Thorne, 1993). Within the context of their interactions with same-gender peers, girls focus on monitoring the emotions of self and friend (Lever, 1976) and the exchange of personal information through self-disclosure (Eder & Hallinan, 1976). Consistent with the goal of affiliation, girls exhibit a great deal of physical touching with same-gender friends (Schofield, 1981). The distinct structure of the "girls' world" may in part account for a distinct "female" interpersonal style.

Researchers have contended that as a function of their activities, girls have highly developed social-emotional skills including nurturance and emotional support (e.g., Lever, 1976). In terms of their communication style, girls have been observed to be more expressive (Lever, 1976), use directives which are mitigated (e.g., "let's" "we gotta") (Goodwin, 1980), and demonstrate extremely polite conversation skills (e.g., turn-taking) (Maltz & Borker, 1982) while still being able to coordinate their strong motivation for affiliation with their own self-interest (Leaper, 1991). When discussing

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their concepts of friendship, girls include components of intimacy and interpersonal support at an earlier age than do boys (Berndt, 1981; Bigelow and LaGaipa, 1980; Smollar & Youniss, 1982). Indeed, within the context of existing same-gender friendships, girls place a high value on intimate conversation and knowledge (Berndt, 1982) and report higher levels of intimacy (e.g., self-disclosure) as compared to boys (e.g., Berndt, 1981; Berndt, 1982; Buhrmester & Furman, 1987; Bukowski, Newcomb, & Hoza, 1987; Claes, 1992; Douvan & Adelson, 1966; McDougall, 1995; Parker & Asher, 1993; Reisman, 1990; Rivenbark, 1971; Sharabany, Gershoni & Hofman, 1981; Sterling, Hymel, & Schonert-Reichl, 1995).

The world of boys. The structure and nature of boys' play, as opposed to that of girls, involves larger, more age-heterogeneous groups (e.g., Eder & Hallinan, 1978; Lever, 1976; Waldrop & Halverson, 1978) who more frequently interact outdoors (Lever, 1976), control a larger amount of playing space on the playground (Thorne, 1986) and engage in rougher forms of play and games (e.g., Maccoby & Jacklin, 1987; Thorne, 1993). Boys have been observed to be preoccupied with organized sports (Thorne, 1993), frequently engaging in competitive games (e.g., with structured rules and a known goal) (Lever, 1976). Indeed, it has been contended that the structure of boy's play is paralleled in the structure of their relationships which are hierarchical and competitive (Thorne, 1993). For boys, the focus of interaction has been observed to be on proving and displaying athletic skill (e.g., physical strength) in a constant bid to be at the top of the hierarchy (Schofield, 1981). As with the world of girls, the structure and nature of boys' play has been linked to a distinct interpersonal style.

Boys have been observed to demonstrate highly developed instrumental skills which afford them the ability to work as a member of a team, putting the goals of the team ahead of the self (Lever, 1976). Boys (in contrast to girls) appear to demonstrate more overtly aggressive behavior (e.g., Hyde, 1984). Within the context of communication skills, boys appear to utilize the language of the "team" which often involves high use of direct commands, insults, threats and challenges (Goodwin, 1980;

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Thorne, 1993). That is, the verbal exchanges of boys have been observed to be more controlling and domineering with assertion as a primary goal (Leaper, 1991; Maltz & Borker, 1982).

<u>What causes gender segregation?</u>. There have been numerous explanations for the root cause of this wide spread segregation in childhood; how is it that boys and girls emerge out of two separate worlds? For the purpose of the present discussion consideration will be limited to four main lines of argument. First, some theorists have argued that the observed segregation of girls and boys is a consequence of gender socialization in childhood. Specifically, it has been suggested that in some cases adults reward and encourage same-gender interactions (e.g. Hartup, 1983; Rubenstein & Rubin, 1984). Second, researchers have contended that gender segregation arises through a process of gender labeling (see Martin, 1994 for discussion) in which the first step is awareness of the different categories of "boy" and "girl" and the ability to place the self in one of these categories. Subsequently, young children want to be with their "own kind" and thus avoid members of the "other kind" which serves to confirm their gender identification. Once these two gender related groups are in place this gives rise to the development of group loyalty, a propensity to stereotype the "other kind" and sanctions against those who violate the rule of segregation.

As a third perspective, researchers have contemplated the role of play styles in segregation arguing that young boys and girls develop very different play styles and hence, children are attracted to same-gender peers because of common interests in toys and modes of interaction (see Serbin, Moller, Gulko, Powlishta, & Colburne, 1994 for a discussion). Indeed, for early adolescent boys positive links have been observed between preference for same-gender peers and liking gross motor activities with a negative relationship observed for girls (Bukowski et al., 1993).

Finally, Maccoby (1988) has suggested that early cross-gender interactions are fraught with difficulty as girls utilize a less assertive style of communication which provides them with little success in influencing boys. It is argued that these early

cross-gender interactions are unfulfilling and unrewarding for girls who then turn to same-gender companions (see also Archer, 1992). Along a similar line, Maccoby (1994) has suggested the possibility that gender segregation has its roots in a bi-directional process whereby boys approach potential playmates with a vigorous style which is appealing to other boys but discouraging to girls.

In summary, there is considerable evidence to support the idea of two separate "worlds" or "cultures" in childhood, created by gender segregation. There has also been significant effort expended to understand the cause of this wide spread gender segregation. Perhaps one reason for the intense scrutiny of gender segregation has been the concern that, "...boys and girls will meet in adolescence virtually as strangers, having learned different styles of interaction and different coping styles" (Fagot, 1994, p. 62). Indeed, with the onset of adolescence it is expected that the two social worlds will naturally merge together. Yet, this merger may be easier said than done. Specifically, it has been argued that the pattern of same-gender interaction that is established early on may lead early adolescents to view their same-gender friendships as a prototype which they will use to evaluate friendships with members of the other gender (e.g., Hartup, 1986; Rose, 1985; Sullivan, 1953). The use of same-gender friendships as a prototype could potentially lead to conflict, misunderstanding and dissatisfaction with cross-gender friends when each gender expects behavior that is more characteristic of same-gender friendships. As an example, it may be that conflict is created when male and female friends fail to communicate with each other in a way that is expected in same-gender friendships. This lack of communication is likely given that girls and boys perceive the world quite differently (Tannen, 1990). The logic of the arguments for "inevitable conflict" are fundamentally based in the premise that the behaviors and interaction styles of boys and girls are in fact qualitatively different and that boys and girls have only limited social experience with each other during childhood. Yet these premises may not capture the entire picture. Indeed, in recent years some researchers have begun to oppose the model of segregation or "dualism"

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(Thorne, 1993) suggesting that it narrows and limits the way in which we view social relationships in childhood.

Exploring cross-gender interactions. Thorne (1986, 1993) has argued that by focusing exclusively on the model of "different worlds" and examining main effects of gender we frequently ignore the individual variation which occurs within gender. Indeed, Thorne has argued that "a skew toward the most visible and dominant - and a silencing and marginalization of the others - can be found in much of the research on gender relations among children and youth" (1993, p. 97). Criticizing existing theories of the causes of gender segregation, Thorne has contended that theories built on an explanation of difference are unable to explain, or account for those occasions in which boys and girls choose to be together. Accordingly, Thorne suggests that if we are to fully understand gender and social relations we must be begin to consider the "with" as opposed to our traditional focus on "apart".

In keeping with her theoretical focus, Thorne has observed and documented a variety of activities in which boys and girls interact together. Some of these activities fall under a category of "border work" and appear to be boy/girl interactions designed to affirm the existing boundaries between genders. Thorne describes several examples of border work including (1) occasions in which gender defined teams compete (e.g., boys versus girls in a classroom competition), (2) cross-gender chasing in the playground and (3) group invasions in which a group of one gender invades the ongoing activity of a group of the other gender. In the elementary school context, then, it would appear that displaying affection or friendship towards members of the other gender puts one at risk for teasing and ridicule (Schofield, 1981; Thorne, 1993). Yet, as Thorne describes there are a number of contexts in which cross-gender interaction is less risky including: (1) cooperative work groups at school that involve an absorbing task, (2) occasions in which group composition is imposed by an adult, (3) occasions in which group composition is defined on a dimension other than gender, (4) interactions that are less public (e.g., at home) and (5) instances in which the number of available playmates is

small, thereby reducing the number of people to choose from. Interestingly, despite the reported "risk" involved, there is some evidence to suggest that preadolescent boys may be more willing to cross gender lines than girls, especially in the context of schoolwork (Cohen et al., 1980).

Thorne's (1986, 1993) work highlights the fact that cross-gender friendships may not be public or visible (see also Gottman, 1986) and that within the context of the school, children avoid the appearance of "liking" someone of the other gender. As a consequence, existing estimates of the incidence of cross-gender friendship may in fact be underestimates of the proportion of this type of relationship. Indeed, "school context" estimates of the percentage of cross-gender friendship within the social network have ranged from 5% (early to middle adolescence, Hartup, 1993) to 8% (middle childhood, Kupersmidt, DeRosier, & Patterson, 1995; early adolescence, Degirmencioglu & Urberg, 1994) to 13% (mid to late adolescence, Degirmencioglu & Urberg, 1994) to 13.5% (middle childhood, Kovacs, Parker, & Hoffman, 1996). In contrast, estimates that blend both the school and home contexts suggest that the percentage of cross-gender friendships in the network is actually higher, ranging from 15% (middle childhood, Smith & Inder, 1990) to 20-25% (early to mid -adolescence, Blyth et al., 1982). Finally, estimates obtained outside the school setting suggest that the incidence of relationships with members of the other gender is considerably higher, ranging anywhere from 18 to 38% for children between the ages of 1 and 12 (Ellis, Rogoff, & Cromer, 1981).

Although it is clear that the incidence of cross-gender friendships increases with age beginning around middle childhood (e.g., Feiring & Lewis, 1991; Shrum, Cheek, & Hunter, 1994), previous researchers may have underestimated the occurrence of cross-gender friendships by limiting friendship nominations to the classroom context (Rubin et al., 1997). Indeed, it appears that cross-gender friendships are more likely to take place outside school (e.g., Ellis et al., 1981; Smith & Inder, 1990). In addition, the common practice of limiting students to their top three best friends may substantially

reduce reports of cross-gender friendships given that these friendships are simply not likely to be among the first few friends nominated (Degirmencioglu & Urberg, 1994). Thus, it would seem that if we are to fully explore the nature of cross-gender interactions we must incorporate children's experiences from both inside and outside the confines of the school context. Accordingly, within the methodology of the present investigation, participant reports of their experience with friendships were not limited by the boundaries of the school or classroom context and were not restricted to the "top" or "best" friends.

In summary, a unilateral focus on the existence of "different worlds or cultures" as well as underestimates of the incidence of cross-gender relationships may have limited our consideration of children's experiences in cross-gender interactions. As Thorne (1986, 1993) contends, we cannot ignore instances of cross-gender interaction because they are "contexts for experience and learning" (1986, p. 182). Indeed, children's experience with cross-gender interactions may have implications for development in early adolescence. That is, despite the fact that early adolescents may use same-gender friendships as a model for cross-gender friendships (as described above) this does not mean that conflict in friendship expectations of girls and boys is an inevitability. Having learned about each other during cross-gender interactions in childhood, it is quite possible that some gender differences in the patterns of interaction or styles of communication may be valued by participants in cross-gender friendships and may constitute the basis for cross-gender friendship selection.

On the one hand, then, experiences in cross-gender interactions in childhood may lead to very rewarding cross-gender friendships. On the other hand, if we follow the arguments of the proponents of gender segregation, the existence of "separate worlds" might create conflict and frustration when early adolescents attempt to merge social worlds in cross-gender friendship. At present, we simply do not know enough about the development of cross-gender friendships in childhood and adolescence to unravel this issue. It may be possible to better understand the merging of the two

"social worlds" and the resurgence of public cross-gender friendships in early adolescence by directly examining the development of friendship conceptions (e.g., expectations) for same- and cross-gender friendships. By exploring the way in which children and adolescents think about friendships we may begin to resolve some of the key questions. Specifically, do children and adolescents have common or gender-neutral conceptions of "friendship" or do they think differently about friendships with same- versus cross-gender peers?

Conceptions of Friendship.

An individual's skills in person perception (e.g., the ways in which an individual thinks about or perceives others) have been observed to develop quite markedly from early childhood into adolescence as children begin to demonstrate an increasingly more advanced conceptual system. Specifically, with increasing age the focus of children's descriptions of others tend to progress from externally observable constructs such as behaviors or appearance (age 6-8), to psychological constructs such as attitudes or beliefs (age 9+) which in many cases must be inferred from behavior (Barenboim, 1981). The way in which children think about others is directly related to the development of their thoughts and expectations about friendship (Furman & Bierman, 1984).

Three main models of the developmental changes in friendship conceptions have been outlined including the work of Youniss and Smollar, Bigelow and LaGaipa, and Selman. Each of these groups of researchers have adopted somewhat different conceptual frameworks and varied methodological approaches. I will begin with a brief review of each of these three research efforts following which I will highlight the consistent developmental picture of friendship conception which has emerged from this body of work.

In an extensive research program Youniss and Smollar (Volpe) adopted the notions of Sullivan (1953) and Piaget (1932/1965) arguing that development is not about the individual, but instead is embedded in relationships. Utilizing a Piagetian

model of operativity (e.g., what actions or operations establish, maintain, terminate relationships with others) Youniss and Smollar investigated the development of social cognition and the social relationship of friendship (Smollar & Youniss, 1982; Youniss, 1980; Youniss & Volpe, 1978). Indeed, Youniss and Smollar argued that friendship provides the context in which an individual can experience cooperation, mutual respect and interpersonal sensitivity. In an effort to map out the developmental progression of these three concepts, Youniss and Smollar had elementary school-aged children respond to hypothetical situations which involved different personal transactions including becoming friends, obligations in friendships and general characteristics of friendship interactions (e.g., kindness). Youniss (1980) argued that the development of children's conceptions about friendship, and the operations involved in friendship, were consistent with what might be expected given a Sullivan-Piagetian starting point. Specifically, very young children evidenced the use of direct reciprocity, and tit-for-tat equality, as a rule for getting along in a friendship. With increasing age, equality and reciprocity progressed from simply procedures or rules, to actual principles of relations. For example, as children reached preadolescence they began to report "that friends should adhere to the principle of equal treatment" (Youniss, 1980, p. 250). Youniss contended that older children continued to build on this "mutuality" and ultimately developed a sense of mutual understanding through a process of self-revealment.

Using a different approach, Bigelow and LaGaipa (Bigelow, 1977; Bigelow & LaGaipa, 1975, 1980; LaGaipa, 1981) proposed that there is a direct parallel between moral development and the development of friendship conceptions. Specifically, Bigelow and LaGaipa adopted Piaget's three stages of moral development (reward-punishment, social approval, and internal standards) as a framework for understanding children's thinking about friendships. In an effort to empirically validate their proposed framework, Bigelow and LaGaipa asked elementary school-aged children to describe (in writing) their friendship expectations, "those beliefs, attitudes and values that a person expresses as being important characteristics to have in a best friend" (Bigelow,

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1977, p. 246). Through content analysis Bigelow and LaGaipa outlined a number of important dimensions (e.g., common activities, acceptance) and identified the age at which children begin to use these differing dimensions in their discussions of friendship expectations. For example, the friendship expectations of younger students (e.g., grade 2) included numerous statements regarding common activities, or doing things together. In contrast, the friendship expectations commonly mentioned by preadolescents (e.g., grade 5) included notions of loyalty and commitment with expectations for intimacy emerging around early adolescence (e.g., grade 7-8). It is important to note, however, that Bigelow and LaGaipa documented two affective dimensions of friendship, including ego-reinforcement and reciprocity of liking, both of which seemed to be important features in friendships across the age span. In subsequent work, Bigelow and LaGaipa suggested that three stages of friendship reasoning could be identified as follows: Stage 1 - Reward-Cost stage in which children emphasize aspects like common activities and helping, Stage 2 - Normative Expectation stage at which time the dimension of character admiration becomes important along with reports that friends share norms and values, and finally, Stage 3 - Empathic stage in which friendship conceptions are characterized by an emphasis on dimensions like acceptance, loyalty and commitment, and intimacy potential.

Finally, Selman (1980, 1981) approached his research in friendship by questioning whether there was an underlying social-cognitive dimension that could explain observed changes in friendship conceptions. Selman identified age changes in social perspective-taking as the social-cognitive dimension which drives changes in friendship conception. That is, Selman suggested that children's thinking about friendship is organized directly by their ability to engage in social perspective-taking. Specifically, the child's conceptions of friendship are believed to change as a function of their emerging perspective-taking skills (e.g., the ability to look at another person's perspective and relate it to one's own perspective). Selman pointed out that while younger children adopt an egocentric point of view, with increasing age children

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become better able to consider the perspectives of others and ultimately will be able to adopt a third party point of view enabling them to examine interpersonal relationships from a more objective angle. In his work Selman was particularly interested in the structure of children's thoughts (rather than the content) and thus, utilized open ended clinical interviews in which children were questioned about hypothetical situations involving the potential for conflict between two friends. Based on his data, Selman described five distinct stages of friendship reasoning, each reflecting increasingly more complex skills in perspective-taking. The five stages included:

Stage 0: Momentary Physicalistic Playmates - At this stage children are egocentric and friendship conceptions are based on notions of propinquity.

Stage 1: One Way Assistance - Children at this stage hold subjective or undifferentiated perspectives and as such, a friend is seen as important because he/she performs certain acts (e.g., helping) that is good for the self.

Stage 2: Fair-weather Cooperation - At this stage children and early adolescents realizes that one can evaluate the actions of a friend and the friend can in turn, evaluate the actions of him/her. Although there is an emphasis placed on the two-way nature of friendship which highlights reciprocal interest, friendships will not yet hold up in the face of conflict.

Stage 3: Intimate and Mutual Sharing - Adolescents at this stage are able to step outside the context of the dyad and view the relationship from a third party perspective. Friendship is characterized by an awareness of an affective bond and the notion of friendship as enduring over time.

Stage 4: Autonomous Interdependence - At this stage, although adolescents and young adults continue to rely on friends for psychological support, there is a recognition that each individual has a complex set of needs that will be met by different relationships (outside the friendship).

In summary, it is interesting to note that although each group of researchers has adopted a different conceptual and methodological approach, the developmental changes that they outline in children's friendship conceptions are strikingly similar (ages of onset vary slightly). Indeed, younger children (6 to 8 years old) seem to emphasize common activities and proximity as being important aspects of friendship. With increasing age (9 to 10 years) children's ideas about, and expectations regarding

friendships begin to focus on common interests and reciprocity (e.g., helping) followed by the concepts of acceptance, loyalty, commitment, genuineness and finally intimacy (11 years +). Moreover, all three groups of researchers advocate that friendship conceptions fit within a hierarchical developmental model. That is, concepts mentioned early on do not simply disappear from children's thinking about friendship but instead are reconceptualized in more abstract or complex forms and subsumed within higher levels of friendship reasoning.

The preceding review of research on children's conceptions of friendship has highlighted three primary groups of researchers, but it is important to note that similar developmental patterns have been observed in other independent investigations (e.g., Berndt, 1981; Damon, 1977). An additional series of studies has replicated and confirmed the sequential changes in friendship conceptions using longitudinal designs (e.g., Keller & Wood, 1989), cross-cultural samples (e.g., Krappman, 1996) and alternative measurement strategies (e.g., story recall and questionnaires, Furman & Bierman, 1984). Despite converging evidence of a common developmental trajectory, there has been some discussion over the hierarchical structure of friendship conceptions. Specifically, Berndt has argued that changes in conceptions of friendship are cumulative rather than hierarchical in nature. He suggests that children do not discard or abandon earlier notions of friendship with increasing age but instead continue to recognize and endorse the importance of lower order concepts (e.g., common activities) even when they have shifted their primary emphasis to developmentally more advanced dimensions (e.g., intimacy). Berndt maintains, however, that it is difficult to observe the cumulative nature of changes when researchers restrict the coding of responses to a single dimension that is "most representative" (e.g., Bigelow) or attempt to code responses into a single stage (e.g., Selman).

Although research in children's thinking about friendship has focused primarily on charting general developmental pathways, some researchers have reported individual differences in friendship conceptions as a function of gender. For example, there is some evidence to suggest that boys more commonly stress the importance of companionship and affiliation in describing their beliefs about friendship when compared to girls (e.g., Youniss & Smollar, 1985). In contrast, Bigelow and LaGaipa (1980) and Smollar and Youniss (1982) have documented that girls' understanding of friendship (as observed in both conceptual interviews and existing friendships), develops more rapidly as compared to boys. In particular, girls begin to focus on intimacy and interpersonal support at an earlier age as compared to boys when they are questioned about friendship. In addition, the emphasis that girls place on intimacy potential and faithfulness consistently outweighs the importance of these dimensions reported by boys (e.g., Berndt, 1981). Further, as presented earlier, investigations of existing friendships have revealed that girls report greater levels of intimacy in both same- and cross-gender friendships which increase more quickly (as compared to boys) as they get older (e.g., Sharabany et al., 1981). It has been suggested that boys may develop intimacy more slowly as a function of their de-emphasis on affective features of friendships (e.g., emotional support, sensitivity) coupled with an emphasis on instrumental components of friendships (e.g., giving, sharing, meeting concrete needs) (Sharabany et al.). An alternative explanation is that boys are sufficiently competent in self-disclosure but simply prefer not to engage in extensive self-disclosure with same-gender friends (see Leaper, 1994 for a discussion). Indeed, adolescent and adult males are more likely to disclose to female rather than male partners (e.g., Reisman, 1990; Winstead, 1986) and report greater dependance on women for intimate personal contact (e.g., Aukett, Ritchie, & Mill, 1988; Monsour, 1992).

Despite reliable evidence of sequential change and gender differences, researchers in the area of friendship conceptions have consistently either (1) asked

children to think about same-gender "friends" or "best friends" or (2) asked children to think about "friends" or "best friends" without specifying gender. Given that elementary school-aged children have been observed to more commonly engage in same-gender friendships (e.g., Hartup, 1983) and that cross-gender friends are less likely to rank among the upper echelon of friends (Degirmenciolglu & Urberg, 1994), it can be argued that a child who is asked to think about friendship most likely does so with a same-gender friend in mind. Indeed, Bukowski and Kramer (1986) have argued that having girls focus on the friendships of girls and boys focus on the friendship of boys introduces a confound into friendship conception research which makes interpretation of gender differences both difficult and confusing. Specifically, "whereas it may be that girls and boys have different ideas about what factors constitute friendship, it is also plausible that children of both genders maintain different impressions of the criteria that define friendship among girls as compared with friendship among boys" (p. 332). In an attempt to address this confound, Bukowski and Kramer (1986) asked students (grades 4 and 7) to make judgments about the likelihood that hypothetical sets of two boys or two girls were in fact friends. Statements regarding the features of friendship (e.g., intimacy, help, similarity) were manipulated across each of the hypothetical same-gender dyads. An exploration of student's responses revealed that intimacy was perceived as a defining feature of female friendships but less so for male friendships. Bukowski and Kramer concluded that children may in fact hold different beliefs about what is expected in the same-gender friendships of boys versus girls.

If boys and girls hold different beliefs about friendship as a function of whether it involves two boys, or two girls, one might also wonder about beliefs which are held regarding cross-gender friendships. There are at least three possibilities to consider in outlining conceptions of cross-gender friendship:

(1) A developmental lag: Consistent with the notion of same-gender friendships as prototypes (e.g., Sullivan, 1953), it may be that individuals maintain expectations for cross-gender friendships which are consistent with what they have experienced with

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same-gender friends. If this is true, one might expect to see a developmental lag whereby cross-gender friendships trail behind what is expected from a same-gender friend. As an example of this developmental lag, it may be that the emphasis placed on intimacy (or loyalty and commitment) in same-gender friendships is quite high in early adolescence but not as salient for cross-gender friendship which may be "newer" or "younger" friendships and may thus contain fewer expectations for intimacy. The emphasis placed on intimacy in cross-gender friendship may not "catch up" until sometime later in adolescence. As a second example, it may be that the emphasis on common activities, a developmentally earlier notion of friendship, is greater for cross-gender friendships in early adolescence as compared to the emphasis observed for same-gender friendships. Consistent with the notion of a developmental lag, emphasis on common activities for same- and cross-gender friendships might converge in later adolescence when cross-gender friendships catch up.

(2) "Girls" friendships versus "Boys" friendships. Following the logic of Bukowski and Kramer (1986), it may be that individuals acknowledge the differences between the friendships of girls and boys and thus would modify friendship expectations as a function of being with a boy versus a girl. If this were the case, then early adolescent girls, for example, would likely hold expectations for intimacy with same-gender peers, but knowing that this is not part of the "male" friendship, would hold different expectations for their friendships with boys. Boys, in turn would have one set of expectations for their same-gender friendships (low on intimacy) but might expect to engage in intimacy within the context of the friendships with girls. In the case of "girls" and "boys" friendships one could envision a continuum on which expectations for the same-gender friendships of boys and girls appear at either end. The cross-gender friendship expectations of boys would likely approach the same-gender "girls" end with the cross-gender friendship expectation of girls resembling the same-gender "boys" expectations.

(3) <u>The type of relationship</u>. Furman (1993) has suggested that same- and cross-gender friendship may simply be different types or categories of personal relationships. Indeed, if we follow Thorne's (1986, 1993) logic it may be that individuals have sufficient opportunities to learn what to anticipate from cross-gender interactions and develop a set of cross-gender friendship expectations that are different from those they hold for same-gender friendships. The issue of "type" of relationship, however, may not be an all or nothing thing suggesting that it is possible to hold both different and similar expectations for same- and cross-gender friendships depending on the dimension or feature of friendship being discussed. Perhaps, having experienced cross-gender interactions like those documented by Thorne (1986, 1993), individuals may believe that along certain dimensions friendships are friendships, regardless of the gender of the partner.

Only one study to date has compared children's friendship reasoning in same- and cross-gender contexts. Specifically, Zarbatany, Ghesquiere, and Mohr (1993) asked early adolescents about what they would "like that person to say or do" in five different contexts (e.g., academic, watching TV., talking on phone, sports, games) for both same- and cross-gender friends. Despite the fact that early adolescents "liked" friends to do different things in varying contexts (e.g., ego reinforcement important during sports activities), what students "liked" was not observed to vary as a function of the nature of the relationship (i.e., same-gender versus cross-gender). Thus, it appears that within a context-specific framework, early adolescents hold gender-neutral expectations for friendship, expecting similar things from same- and cross-gender friends. The concept of gender-neutral expectations runs counter to the notion that same-gender and cross-gender friends are different types of personal relationships. It must be pointed out, however, that asking "what you would like someone to do" in a given context does not necessarily reflect more general underlying conceptions of friendship. In addition, as the authors point out, the absence of intimacy as a coding

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category in the analysis may have eliminated differences in what would be "liked" from a same- versus a cross-gender friend.

In an effort to understand the development of cross-gender friendships, the present investigation involved an examination of changes in friendship conceptions between middle childhood and middle adolescence (ages 8, 11, 14, 17). Specifically, during individual interviews students were asked a set of identical questions to probe their conceptions of friendship with both same- and cross-gender friends. In addition, students were asked to reflect directly on the differences and similarities that they perceive between same-gender and cross-gender friendships.

Although the Zarbatany et al. (1993) study represents the single attempt to compare same-gender and cross-gender friendship conceptions, other researchers have investigated same- and cross-gender differences in student reports of friendship quality. Despite the fact that these studies do not directly inform the present line of inquiry on friendship conceptions, they do shed light on important methodological issues in the investigation of cross-gender friendship in general. What follows then, is a brief review of this work.

Cross-gender friendship and friendship quality

To begin, Sharabany et al. (1981) examined intimacy as a multidimensional construct (e.g., frankness and spontaneity, sensitivity and knowing) in a sample of students in grades 5, 7, 9 and 11. One group of students was asked to report on intimacy in their same-gender friendships whereas a second group reported on intimacy with cross-gender friends. Results indicated that intimacy reported in same-gender friendships was relatively stable for boys and girls across grades. In contrast, intimacy reported with cross-gender friends demonstrated an increase across the grade levels (steeper for girls). Despite the fact that reports of intimacy in same-gender friendships were consistently higher than those of cross-gender friendships, convergence of these different groups was observed by grade 11. Although informative, Sharabany et al. utilized a between subject design which removed the

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potential to get at the real issue. Specifically, Sharabany et al. (1981) did not address the question of whether the same individual sees their same-gender friendships as different from, or similar to, cross-gender friendships. Accordingly, a within-subjects design becomes essential in the pursuit of understanding cross-gender friendships.

Lempers and Clark-Lempers (1993) adopted a within-subjects design in their cross-sectional investigation (grades 6 to 12) of how students describe the "attributes" (e.g., admiration, affection, companionship) of their same-gender and cross-gender friendships. Findings indicated that at all ages, same-gender friendships ranked higher than cross-gender friendships whenever there was a significant difference. Lempers and Clark-Lempers concluded that both boys and girls perceive their same-gender friendships as more significant than cross-gender friendships. Yet, the work of Lempers and Clark-Lempers raises an important methodological issue in the study of cross-gender friendship. Specifically, in their study Lempers and Clark-Lempers asked students to think about same-gender friends and boy/girlfriends. The use of the word boyfriend and girlfriend has a fairly strong connotation, and is highly suggestive of a romantic involvement. Thus, it is impossible to know whether participants were thinking about cross-gender friendships or other romantic heterosexual relationships.

Sterling, Hymel and Schonert-Reichl (1995) moved this area one step further by examining friendship quality with same- and cross-gender friends in a sample of students in grades 5, 8 and 11. Findings revealed variations in friendship quality as a function of both grade, gender of the participant and nature of the relationship (same-gender versus cross-gender) as well as a series of interactions between these factors. What seems critical to the present review are those findings that delineate (1) how the experience of cross-gender friendship might be different for boys and girls and (2) how cross-gender friendship compares to same-gender friendship over time. First, with respect to different experiences, Sterling et al. reported that, although self-disclosure and trust/loyalty appeared to be greater for both genders in same- versus cross-gender friendships, this difference was larger for girls. Similarly, whereas girls reported greater

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validation/caring in their same-gender friendships as compared to cross-gender friendships, boys' same-gender friendships (in contrast to cross-gender) were higher in level of conflict.

Second, with respect to the comparison of same-gender and cross-gender friendship over time, Sterling et al. (1995) presented a number of relevant findings. In particular, although several dimensions of friendship quality (e.g., self-disclosure, shared experience, school help) were reported at greater levels in same- versus cross-gender friendships, this difference was observed to diminish by grade 11 (although it remained statistically significant). Similarly, although qualities like trust/loyalty and validation/caring were rated as higher in the same-gender versus cross-gender friendships of fifth and eighth grade students, there were no differences in reports of these qualities for older students. Finally, the same-gender friendships of fifth graders were higher in reported closeness than were cross-gender friendships, but this difference was absent in the friendships of older children.

In general, the work of Sterling et al. (1995)suggests that the experience of cross-gender friendship may be different for boys and girls and that when friendship quality is considered, cross-gender friendship becomes more similar to same-gender friendship as students get older. In collecting their data, Sterling et al. avoided the pitfall of Lempers and Clark-Lempers (1993) and did not ask about "girlfriends" or "boyfriends". It is important to note, however, that their instructions did not dissuade students from considering a romantic heterosexual partner as a cross-gender friend. That is, although students were told that their cross-gender friendship choice did not have to be "someone you are dating", students were not told to exclude dating partners from their cross-gender friendship choices. As a consequence, it becomes difficult to sort out whether some students (especially older students) were in fact thinking about the qualities of their relationships with dating partners rather than the qualities in a "platonic" friendship.

As one rare example, Buhrmester and Furman (1987) had students in grades 2, 5 and 8 report on the companionship and intimacy experienced with a best friend of the same gender and a best friend of the other gender. Buhrmester and Furman made a clear distinction between "best friend" and "romantic boyfriend/girlfriend" status. Consistent with what has been previously reported, same-gender friendships received higher ratings in the provision of both intimacy and companionship as compared to cross-gender friendships. Further, ratings of intimacy and companionship in cross-gender friendships were highest amongst the oldest students.

Taken together, results of this series of studies suggest that with increasing age the qualities of cross-gender friendships come to approximate the level of quality experienced in same-gender friendship. Interestingly, when gender differences are observed, the evidence implies that it is girls who are more likely to make distinctions between their same- and cross-gender friendships. Unfortunately, the majority of the studies comparing friendship quality in same- and cross-gender friends suffers from measurement ambiguities having either (1) used between-subject designs or (2) failed to make clear distinctions between friendships and romantic heterosexual relationships. Clearly, the study of cross-gender friendships requires precision in measurement to ensure that participants are not confusing romantic heterosexual partners with cross-gender friendships. Although it may be difficult to pull apart "dating" from "platonic", questions about friendship in the present investigation included careful semantic phrasing (e.g., a friend that is a girl) and were prefaced by explicit instructions to exclude thoughts and beliefs about individuals who represent romantic interests.

Moving beyond friendship conceptions

An examination of the development of friendship conceptions from middle childhood to middle adolescence represents only one piece in the current cross-gender friendship puzzle. Of additional interest in the present investigation was a second domain of friendship development, namely, the selection of friends. Whereas the exploration of friendship conceptions informs the question of what children and

adolescents expect or value in cross-gender friendships, the study of friendship selection takes this exploration one step further by asking what it is that students look for when selecting cross-gender friends. Given the present focus on charting the territory of cross-gender friendship, of particular interest here was whether students use common criteria for selecting friends (same- and cross-gender), or whether selection criteria vary as a function of the gender of the target.

Understanding Friendship Selection.

Interpersonal Attraction in Childhood and Adolescence. An examination of the extant literature suggests that aquaintanceship processes in childhood and adolescence are somewhat parallel to what is observed in adulthood (e.g., Duck, Miell, & Gaebler, 1980). Indeed, Duck and his colleagues have argued that acquaintanceship across all ages begins with a focus on observing and understanding the objective or concrete features of an individual (e.g., physical appearance) and then is extended to include information regarding other aspects of the target individual such as behavioral style, behavioral motivation and personal character. Yet for children, "the acquaintance sequence is complicated (and limited) by the fact that children are learning in many different areas of 'cognitive' and 'social' competence at the same time as they are learning to interpret, and themselves, produce, the behaviors that are implied by a given stage of relationship development" (Duck et al., 1980, p. 90). That is, unlike adults, the interpersonal attraction process in childhood and adolescence may be limited with respect to level of skill in social interactions and the ability to understand behavioral information. As one example of these developmental "limitations", it has been argued that the way in which younger children think about "others" may be qualitatively different from the "person-perception" of older children and adults (Duck et al.). Specifically, with increasing age children have been observed to describe others in an increasingly differentiated fashion (Peevers & Secord, 1973). Barenboim (1981) has proposed that, in early and middle childhood, individuals make comparisons based on rather concrete and external characteristics. It is not until later

childhood and adolescence that individuals make contrasts and comparisons based on internal motives, attitudes and beliefs (Livesley & Bromley, 1973; Peevers & Secord, 1973), and are able to explore both differences and similarities in their friendships (Ladd & Emerson, 1984). Thus, children and adolescents may show different patterns of interpersonal attraction simply as a function of their developing skills in person-perception. Having noted the importance of developmental issues, I turn next to a consideration of what has been observed regarding the interpersonal attraction processes in childhood and adolescence.

Over three decades ago Byrne and Griffit (1966) used the "anonymous or bogus stranger paradigm" to demonstrate that even with children as young as nine years, "attraction toward a stranger was a positive linear function of the proportion of that stranger's attitudes which are similar to those of the subject" (p. 699). Indeed, children indicated greater preference for, or attraction towards, those individuals whose attitudes resembled their own. These findings have been interpreted to suggest that children are positively reinforced by forming friendships with those who are similar because their attitudes are validated and supported (e.g., Byrne, 1971; Savin-Williams & Berndt, 1990). In subsequent research examples with children and adolescents, similarities in *age* (Hallinan & Tuma, 1978; Kandel, 1978a), *ethnicity* (Clark & Ayers, 1992; Fagan, 1980; Kandel, 1978a; Kupersmidt et al., 1995), *gender* (Clark & Ayers, 1992; Fagan, 1980; Hallinan & Tuma, 1978; Kandel, 1978a), *intelligence* (Kandel, 1978a;), *academic orientation* (Epstein, 1989), *school performance* (Eiser, Morgan, Gammage, Brooks, & Kirby, 1991; Kupersmidt et al., 1995), *activity preferences* (Aboud & Mendelson, 1996), *locus of control* (Fagan, 1980), *self-esteem* (Clark & Drewry, 1985), *sociometric status/popularity* (Drewry & Clark, 1985; Savin-Williams, 1979), *aggression* (Cairns, Cairns, Neckerman, Gest, & Garieppy, 1988; Kupersmidt et al., 1995), *withdrawn behavior* (Kupersmidt et al., 1995), *health related attitudes* (Eiser et al., 1991) and *substance use* (e.g., smoking, drinking and illicit drug use) (Bauman &

Fisher, 1986; Eiser et al., 1991; Kandel, 1978b) have been demonstrated to differentiate friend and non-friend pairs.

Despite relatively consistent findings of concordance between friend pairs, controversy in the area of friendship similarity has surrounded the question of whether observed similarity represents a domain of interpersonal attraction and is in fact a mechanism of selection or whether friends simply become more similar to each other through a process of influence, making observed similarity a product of socialization within existing friendships (e.g., Hartup, 1992). Indeed, much of the similarity research thus far has involved estimating levels of similarity or concordance rates between existing friendship pairs, which confounds selection and socialization. Pulling apart the effects of selection and socialization is only possible in a longitudinal design and to date, few such studies have been conducted to address this issue. As one example, Kandel (1978a) followed adolescent friendships as they formed and dissolved over the course of a school year and observed roughly equal degrees of selection and socialization at play in the friendship (or non friendship) concordance of school attitudes and illicit behaviors (e.g., drug use, delinquent involvement). Although some researchers have concluded that similarity plays both a selection and socialization role in friendships (e.g., Hartup, 1983; Kandel, 1978a), others have maintained that the primary purpose of similarity in friendship rests in its value as a selection criterion (e.g., Brown, 1990; Cohen, 1977).

In summary, although the processes of interpersonal attraction may be similar to those observed in an adult population, there are qualitative (seemingly developmental) differences in the way in which children and adolescents view others. To date, researchers have demonstrated that children and adolescents are attracted to those who are similar to them across a wide range of features. It has been argued that similarity to self plays a reinforcing and supportive role and is, hence, a desirable feature of attraction. In addition, however, similarity may serve both a selection and a socialization function in friendship pairs. In an effort to avoid the selection/socialization

conundrum, the present study utilized a series of hypothetical friendship selection tasks which avoided the typical measurement of concordance rates between existing friendship pairs.

Closely aligned with interpersonal attraction is the process of friendship selection. Indeed, mechanisms and features of attraction operate to bring individuals together and, in some cases, prompt a decision of liking. What follows is often the decision to select someone as a friend and to pursue the initial feelings of attraction. In research, attraction and selection are often used interchangeably and some might argue that the separation of these two concepts is arbitrary. There has in fact been a movement towards integrating theories of attraction into research on differing friendship choices in hopes of presenting a properly balanced description of these processes (Hallinan, 1981).

A developmental model of friendship selection. Epstein (1986, 1989) has perhaps provided the most comprehensive account of friendship selection in childhood and adolescence by proposing a theoretical model which encompasses both developmental and environmental concerns as well as integrating the role of similarity taken from interpersonal attraction research. Epstein's underlying premise is that the process of friendship selection changes with age and is influenced by differently organized environments.

Epstein argues that there are three aspects or levels of friendship selection including facts of selection (e.g., proximity), surface of selection (e.g., visible features) and depth of selection (e.g., personal characteristics). For the purpose of the present investigation each of these aspects of selection is reviewed, paying careful attention to the developmental and environmental issues that play a critical role in who gets chosen as a friend.

To begin, proximity is believed to be the most basic fact of selection which "...as a condition of location, requires little or no awareness of the attributes or characteristics of others" (Epstein, 1989, p. 158). Indeed, perhaps one of the most fundamental

precursors to friendship choice is simple opportunity (Duck et al., 1980). With respect to developmental issues, the nature and meaning of close proximity changes with age as boundaries become increasingly broad when children get older (Epstein, 1983). There are, however, environmental issues which also pertain to proximity. Specifically, "although personal preferences determine the selection of actual friends from among the pool of potential friends, specific school practices constrain the possibilities for contact to particular types of students in particular activity settings" (Karweit & Hansell, 1983, p. 29). There are certain conditions within the school setting which regulate social or peer interaction, either putting kids together or keeping them separated. Epstein (1989) has outlined five important school setting features including architectural features (e.g., playground setup), equipment (e.g., requirements for sharing), demographics (e.g., SES of school population), instructional methods (e.g., cooperative versus competitive learning goals), and organization of non-academic activities within the school (e.g., extracurriculars). As an example of the influence of classroom practices, children in high participatory classrooms where teachers encourage mobility in the classroom, talking about work with peers, choosing own seating, and working in small groups have been observed to interact with a greater number of students and are more inclined to select friends from outside their immediate classroom as compared to students from low participatory classroom settings (Epstein, 1983).

The next level of friendship selection is characterized as surface selection, or selecting friends from a group of equally proximate peers on the basis of visible and observable features (Epstein, 1989). There are numerous surface features which result in the selection of friends; however, two of the most powerful features have been observed to be age and gender.

Researchers have continued to document children's propensity to select friends of the same age. Yet, Epstein argues that this same-age friendship selection may be a function of the fact that researchers generally ask children to nominate or select a

friend from their classroom, and classrooms are commonly age-graded creating little opportunity for cross-age selections. Indeed, Epstein believes that research methodologies coupled with age-grading practices have distorted the role of age in friendship selection. If one goes outside the classroom context, it would appear that mixed-age friendships are increasingly more common (Ellis, Rogoff, & Cromer, 1981). Epstein (1989) has suggested that adolescents have more opportunity for mixed-age interactions because of wider interaction boundaries. It is quite possible that school settings that are organized into mixed-age classes will foster mixed-age friendships. Moreover, in higher grades there is a greater likelihood that factors such as retention or transfer create mixed-ages within the same classroom (Epstein, 1989) thus making the salient surface feature one of "grade" rather than "age" for some high school students (Kandel, 1978b).

One of the other highly salient surface features in friendship selection is gender. As reviewed earlier, peer interactions in childhood are characterized by a distinct gender segregation that reaches a peak during middle childhood (e.g., Hartup, 1983; Maccoby, 1988). Although very young children engage in some cross-gender friendships (Maccoby & Jacklin, 1987) the reported frequency of this type of relationship virtually disappears with increasing age (Eder & Hallinan, 1978; Hartup, 1983; Maccoby, 1988), and does not generally resurface until early adolescence (grades 6 to 8) (e.g., Buhrmester & Furman, 1987; Sharabany et al., 1981). Preference for same-gender peers has been well documented in the extant literature (e.g., Bukowski et al., 1993; Blyth et al., 1982; Hayden-Thomson et al., 1987). To some extent the lack of cross-gender friendships and pattern of gender segregation have been explained as a consequence of gender socialization in childhood. In some cases, adults reward and encourage same-gender interactions (Hartup, 1983; Rubenstein & Rubin, 1984) and make gender a salient feature in the classroom (Thorne, 1986). Indeed, the teacher may play a very strong role in whether or not children are encouraged to interact with, and select as friends, cross-gender classmates.

The final level of selection is concerned with the "deeper features" of similarity between individuals. Specifically, at this level we ask the question of whether friends are chosen on the basis of similarities, complementarities or differences (Epstein, 1989). There is a well documented pattern of similarities across a number of personal characteristics and attitudes (e.g., Eiser et al., 1991; Kandel 1978a, 1978b), examples of which were presented in an earlier discussion of attraction. Indeed, by including similarity as a depth of selection feature, Epstein integrates some of the interpersonal attraction issues with ideas about friendship selection. Epstein argues that as children develop increasingly more sophisticated notions of friendship and friendship expectations (e.g., Bigelow & LaGaipa, 1980) they begin to attend to deeper features of other individuals for the purpose of selection. With respect to the school environment, practices like tracking or ability grouping limit contact with diverse students (Karweit & Hansell, 1983) and seem to create an atmosphere in which similarities and differences are made quite salient, often in a very derogatory light. In contrast, educational settings which encourage integration of heterogeneous groups tend to create a milieu of tolerance and acceptance (Epstein, 1989).

In summary, there are at least three salient levels of friendship selection exemplified by issues of proximity, surface cues and deeper features. Developmentally speaking, Epstein (1989) has hypothesized a linear decrease in the importance of proximity from early childhood through to adolescence as the boundaries of proximity become increasingly more broadly defined. A curvilinear pattern has been identified for the importance of surface features like age, in that the salience of same-age friends peaks between grades 3 to 5 and then drops off into early adolescence as individuals experience more social situations in which age is not a defining feature (Epstein, 1989). A similar trend has been hypothesized for gender. Finally, with respect to the deeper features of friendship selection, Epstein has proposed a pattern of increased importance between early childhood and adolescence as children become increasingly better able to accurately estimate similarities and differences in their peers.

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In their recent review of friendship selection research, Aboud and Mendelson (1996) supported many of Epstein's claims regarding friendship selection, but also argued that similarity may be more important in the friendships of younger children as compared to the selection of friends in later childhood and adolescence. Aboud and Mendelson contend that older children and adolescents search for friends who possess certain desirable personal attributes that may or may not be similar to the self and that the importance of similarity declines in later childhood. For example, individuals who are physically attractive, smart and sociable may be sought out as friends because of their positive and desirable personal attributes. Thus, the arguments presented by Aboud and Mendelson raise the question of whether older children are selecting friends on the basis of similarity or on the basis of certain characteristics or qualities that they would like to have in their friendships.

Although the writings of Epstein (1983, 1989) and Aboud and Mendelson (1996) have provided us with a very useful framework within which to examine friendship selection processes, there are at least two limitations associated with the developmental models proposed. First, Epstein's developmental model has never been empirically validated. Indeed, Epstein is the first to admit that very few studies have included more than one age group, thus making developmental patterns difficult to substantiate. Second, researchers to date have virtually ignored the process of how children and adolescents go about choosing friends of the other gender. Of specific concern in the present investigation was whether same-gender friends are selected on the same basis as cross-gender friends. For example, is similarity to self as strong a requirement for cross-gender friends as it has been observed to be for same-gender friends? Of additional interest in the present study was whether a theoretical model of developmental changes in friendship selection (e.g., Epstein, 1983, 1989) could be empirically validated in a cross-sectional design spanning a wide age range (grades 3, 6, 9 and 12). Finally, pursuing the question raised by Aboud and Mendelson (1996), developmental changes in the role of similarity in friendship selection were examined.

In the present study, a hypothetical friendship selection task (discussed below) was utilized to assess questions surrounding the process of friendship selection.

Friendship selection is undoubtedly a very complex process which can, in part, be understood by exploring relevant developmental and environmental factors. Yet, there may be other active components in the selection process which will contribute to our knowledge and theories of friendship selection. Of particular interest in the present study was whether friendship selection could be framed as a decision-making task in which individuals gather and sort through relevant pieces of information which are then used to systematically decide whether an individual is selected or rejected as a potential friend. In an effort to explore friendship selection as a decision-making task, a brief summary of relevant decision-making literature is provided below.

A background to decision-making. Perhaps one of the most interesting approaches to the study of decision-making behavior has been to move beyond a "product" focus and examine the "process", questioning what goes on prior to a decision being reached (known as "process-tracing"). As Davidson (1991b) clearly points out, "Process tracing techniques are based on the assumption that an individual must encode, store, and process information in order to make a decision. It is believed that tracing how information is used will provide insight into the decision-making process" (p. 78).

In an extensive review of the process-tracing literature, Ford, Schmitt, Schechtman, Hults, and Doherty (1989) identified the general questions of interest in this line of research as (1) What information is accessed during decision-making? (e.g., how much) and (2) How is this information accessed? (e.g., in what order). Prior to exploring the answers to these questions, it is important to understand the nature of the methodology used to explore pre-decisional information gathering. One interesting approach to the study of process-tracing has been the information board. Information boards involve a methodology in which individuals are presented with a matrix or grid-like board containing rows of alternatives (from which to choose) and columns of

dimensions (which contain pieces of information about each alternative). Individuals are instructed to explore pieces of information they believe necessary to select an alternative.

In general, it would appear that pre-decision searching and/or information processing varies as a function of the complexity of the task (e.g., Payne, 1976). That is, when individuals are faced with a decision which involves few alternatives from which to choose, they are likely to explore all pieces of available information in an effort to make the "optimal decision" (e.g., Klayman, 1985). These all out exhaustive information searches, in which each alternative receives the same consideration are known as "compensatory" (e.g., Klayman, 1985; Payne, 1976). In contrast, when faced with complex decisions where there are a number of possible alternatives individuals are likely to utilize decision strategies or "heuristics" which allow them to reduce the potential cognitive strain of a large amount of available information by giving different alternatives varying degrees of consideration. Information searches which involve the systematic consideration of a subset of available information are known as "noncompensatory" (e.g., Klayman, 1985, Payne, 1976). Thus, when Ford et al. (1989) pose a question about what information is accessed during a decision-making task, the distinction between compensatory (all the information for each alternative) and noncompensatory (subset of the information) provides a useful marker. In addition, however, researchers in process tracing are also interested in "how" information is accessed during a decision making task.

Accordingly, researchers have identified "interdimensional" and "intradimensional" searching patterns to demarcate where the focus is placed when conducting a pre-decision search (see Davidson, 1991a, 1991b, 1996; Klayman, 1985; Payne, 1976). Specifically, some individuals search a set of information by looking at each alternative across a set of dimensions. As an example, when selecting someone as a possible candidate for a friend, some children might highlight a specific individual (or alternative) and then examine and evaluate all the available information for that

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individual (e.g., gender, age, attitudes toward school). This type or direction of search has been referred to as an "interdimensional" search (i.e., across dimensions) and provides an example of a conjunctive rule in which each alternative is considered one at a time and must meet a subjective threshold across dimensions in order to be retained for further consideration (Dawes, 1964). In contrast, some individuals prefer to begin their search with a particular dimension that is important to them and then examine and evaluate each alternative on this one dimension. A child, for example might think that age is a particularly important dimension of selection and as such might measure all possible friendship alternatives against this dimension (e.g., same-age). This latter form of search has been characterized as an "intradimensional" search (i.e., within a single dimension) and is exemplified by the "elimination by aspects" rule proposed by Tversky (1972). Specifically, Tversky argued that in the initial phases of search, individuals inspect all dimensions and decide which one is most important or relevant to them. Having identified a key dimension, the searcher then proceeds to examine and evaluate each alternative against a subjective standard that she/he has for that one dimension. Alternatives which <u>do not meet</u> the standard on the important dimension are <u>rejected</u>, whereas alternatives that <u>do meet</u> the standard are <u>retained</u> for another round of evaluation on the dimension deemed next or second most important. This routine continues until the searcher is left with a single alternative that has met the standard on all the dimensions deemed important. Finally, Payne (1976) has contended that in a highly complex decision making task we sometimes engage in a multipass search. That is, we screen alternatives on one or more dimensions (intradimensional) as well as exploring a specific set of alternatives (interdimensional).

In summary then, it would seem that individuals who encounter simple decision tasks involving a small number of alternatives will engage in exhaustive and thorough searches of relevant information (e.g., compensatory) in hopes of optimizing a decision (Payne, 1976). Other, more complex decision-making tasks may involve a larger number of alternatives such that individuals attempt to simplify the process by using

choice heuristics that limit the search of information to produce a "satisfactory" decision (e.g., Billings & Marcus, 1983; Klayman, 1985; Payne, 1976). In examining predecisional information, search patterns can be either intradimensional or interdimensional, and sometimes both.

Despite a rather extensive literature on decision-making (see Ford et al., 1989) very few researchers have focused on information processing and decision-making in childhood and adolescence. Indeed, of the 45 empirical studies that Ford et al. identified in their review, only one (Klayman, 1985) considered what the decision-making process might be like in childhood. Since the time of Ford et al.'s review, very few new studies with younger populations have emerged (e.g., Davidson, 1991a, 1991b, 1996). Notwithstanding, what follows is a review of what we currently know about information search and decision-making in childhood and adolescence.

Klayman (1985) was the first to question whether children utilize compensatory and/or noncompensatory strategies when faced with a decision-making task. In a sample of sixth grade students Klayman observed evidence of noncompensatory approaches to decision-making (e.g., selecting a bicycle, choosing a summer camp, deciding on lunch) using an information board methodology. Klayman concluded that early adolescent students were capable of strategic searching involving choices with "multi-attributes". Indeed, consistent with the adult literature, early adolescent students were observed to adapt to task complexity by employing "cost-cutting strategies", mixing both interdimensional and intradimensional search patterns. Similarly, although students searched more absolute information on larger information boards, the amount of information searched did not increase proportionately. Klayman reported that it was difficult to pinpoint the consistent use of a specific strategy as student's performance reflected more of a blend of both compensatory and noncompensatory strategies.

In a subsequent study, Davidson (1991b) approached the topic of decision-making in childhood from a developmental angle and utilized a sample of students in grades 2, 5 and 8. Using an information board methodology, Davidson observed that

in contrast to second and eighth graders, intradimensional searching was less common for grade 5 students. Further, older children (5th and 8th grade) were observed to search primarily using an interdimensional approach which allowed them to eliminate alternatives more quickly whereas younger children (grade 2) demonstrated a greater frequency of shifts in searching (e.g., neither within the same alternative nor the same dimension). Indeed, younger children searched more information as compared to older children, and appeared to conduct more unsystematic searches. It is important to note, however, that when asked why they made the choice they did? (e.g., selection of a bike or a comb), all children were observed to base their decision on the information board search that they had conducted. As documented in Klayman's (1985) study, increased complexity in the task (e.g., more alternatives or dimensions) resulted in searches of more information (absolute) but not a greater proportion of information. One of Davidson's conclusions was that older children, in contrast to younger, have realized that negative information eliminates alternatives and that once negative information has been found further search of a given alternative is not required and is irrelevant to the decision. Older children may simply be much better at ignoring irrelevant information when making a choice. Using a second sample of children in grades 2 and 5, Davidson (1996) replicated her original observation that older children use more interdimensional searching and less shifting when making decisions on the information board. In contrast to her earlier findings, however, no differences were observed in the use of an intradimensional search pattern.

In summary, researchers have focused on the process by which individual's arrive at a specific decision or select a given alternative. The key components appear to be the type of information that is accessed and the order in which such information is accessed prior to a decision. The consensus has been that with increasing task complexity and cognitive load, individuals more frequently utilize choice heuristics which help to simplify the selection process. There have been only a handful of process-tracing studies conducted with younger populations but this body of empirical

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work suggests that children favor the use of interdimensional searches rather than considering different alternatives within a given dimension (Davidson, 1991a). Moreover, with increasing age children tend to search less information and have been observed to conduct more systematic searches. Finally, consistent with what has been observed with adults, children seem quite capable of modifying their search strategies when the decision task becomes complex.

The issue of interest in the present study is what kind of search strategies or choice heuristics children and adolescents use when faced with the task of deciding with whom they will become friends. To my knowledge, only one group of researchers has ever framed friendship selection as a decision-making task. Specifically, in an effort to explain observations of "homophily" (e.g., similarity) between adolescents, Rodgers, Billy, and Udry (1984) suggested that the search strategy of "elimination by aspects" provides an appropriate explanation for the selection of friends. The logic of their argument was as follows: (1) within the social environment of any given child or adolescent there are many potential friends and (2) in the process of selecting friends individuals identify an aspect (dimension) that is important to them and then examine how potential friends "measure up" on this dimension. Those individuals who do not have the necessary characteristic are simply not pursued as friends. This process continues until all important dimensions are considered and a single alternative or friend is identified. A further assumption was that potential friends must be similar to the chooser on important dimensions. For example, "if person A is black and this is an important aspect to this individual, all non-blacks may be excluded as potential friends" (Rodgers et al., 1984, p. 415). Unfortunately, Rodgers et al. (1984) did not provide an empirical test of this "elimination by aspects" hypothesis.

Although elimination by aspects (an example of an intradimensional search pattern) provides an interesting model, it can be argued that the selection of friends might also be characterized by other search strategies. Specifically, it may be the case

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that children and adolescents compare or contrast potential friends across a variety of dimensions (e.g., age, physical appearance, attitudes), dropping candidates when they fail to meet a certain standard across that range of dimensions (an example of an interdimensional approach). In general, it is conceivable that children and adolescents might actually use different information search strategies in selecting a friend, although this remains an empirical question. Similarly, in keeping with the literature presented earlier on interpersonal attraction, different information search strategies may be a function of developmental changes such that in considering alternatives, some dimensions may be more salient or more important in making a friendship choice. Finally, decision-making for the purpose of choosing a cross-gender friend may be very different from the information searched in making a same-gender choice.

In the present study, then, several areas of research including interpersonal attraction and similarity, friendship selection and decision-making are merged together for the purpose of investigating friendship selection in childhood and adolescence within a broader framework. Within this framework, friendship selection was explored as a decision-making task in which individuals search and consider various pieces of information prior to selecting a friend. In an effort to tap this pre-decisional search process students were presented with two different information boards (one each for a same- and cross-gender friend). However, unlike previous research in the area of process-tracing (see Ford et al., 1989), task complexity was not the issue of interest. That is, students in the present study were not exposed to boards of increasing numbers of alternatives and dimensions in the hypothetical friendship selection task. Instead, the focus of the present investigation was on how predecision searches (e.g., how much information is examined, what pattern of search is conducted, which dimensions seem to be most important) might vary as a function the gender of the "to be chosen friend" (i.e., same- versus cross-gender choice) and/or the age of the selector.

Cross-Gender Friendships and the Presence of Cross-Gender Siblings

The discussion of cross-gender friendship seems to inevitably elicit questions around the role of cross-gender siblings. The underlying supposition is that the experience of cross-gender friendship must in some way be associated with the presence or absence of siblings of the other gender. There appear to be two clear "positions" on this issue.

First, in a review of the sibling and peer relationship literature, Dunn and McGuire (1992) outlined how social learning theorists have argued that behavior learned in family relationships is likely to be generalized to friendships. It may be, then, that the presence of cross-gender siblings influences expectations held for cross-gender friends or decisions made in the selection of cross-gender friends. In support of this suggestion, Toman (1976) has argued that adults with cross-gender siblings (as compared to those without) show a greater likelihood of being interested in, and involved with, cross-gender friendships. Further, Burker, Goldstein and Caputo (1981) documented that women with brothers reported being more comfortable with male friends as compared to women without brothers. In a sample of third and fourth graders, Kovacs et al. (1996) observed that children with cross-gender siblings were slightly more likely to report having cross-gender friends as compared to those without cross-gender siblings (although this association was only marginally significant). Taken together, there are several pieces of evidence which suggest cross-gender siblings may influence the experience of cross-gender friendships.

On the other side of the issue, however, are those who would argue that sibling relationships are different and separate from friendship relations. To begin, whereas sibling relationships are by definition involuntary, friendships are entirely voluntary (e.g., Krappman, 1996; Laursen, 1996). Further, Dunn and McGuire (1992) point out that sibling relationships do not necessarily involve the affection and trust that are commonly evidenced in friendship relationships. Indeed, Laursen has documented that

close friendships in adolescence involve fewer negative interactions, less coercion and higher levels of closeness as compared to sibling relationships. If relationships with friends and siblings are in fact different, we would not expect to see the presence or absence of cross-gender siblings having any effect on either conceptions of cross-gender friendship or the selection of cross-gender friends. In support of the contention that cross-gender siblings do not have an impact, Greenfield and Weatherly (1986) failed to replicate the findings of Toman (1976) and Burker et al. (1981), observing no difference in adult reports of comfort with cross-gender friends as a function of the presence or absence of cross-gender siblings.

In sum, there are likely no simple links between sibling relationships and friendships (Dunn & McGuire, 1992). Moreover, the dearth of empirical findings addressing the influence of cross-gender siblings in the experience of cross-gender friendship are at best, equivocal. Nevertheless, in the present investigation participants were asked to delineate their constellation of siblings in an effort to consider whether the presence or absence of cross-gender siblings might in some way impact on beliefs and expectations held for cross-gender friendships and/or the selection of a cross-gender friend.

Statement of the Problem and Overview of the Design

Researchers in the field of peer relationships have extensively documented the development, function and significance of friendship in childhood and adolescence. Yet, the focus of research efforts in this area has remained almost exclusively within the realm of same-gender friendships. In the current investigation it is argued that the domain of cross-gender friendships remains a mystery and that we must begin to unravel this mystery by tracking the development of cross-gender friendships from middle childhood (when cross-gender friendships are believed to be virtually extinct) to the point at which they re-emerge in pre-adolescence and on into the middle adolescent years. In the present investigation, the development of cross-gender

friendships was explored within the domains of friendship conceptions and friendship selection.

Accordingly, a cross-sectional study of students ranging in age from middle childhood to middle adolescence (i.e., ages 8, 11, 14 and 17) was conducted to chart the territory of cross-gender friendships. Students participated in a friendship conception interview which included (1) conceptions of same-gender friendship, (2) conceptions of cross-gender friendship, (3) perceptions of similarities and differences between these two contexts of friendship and (4) a description of experience with cross-gender friends. In the second part of the study, students participated in a series of information board tasks designed to explore the nature of their predecisional search strategies in selecting a hypothetical friend. Specifically, participants were presented with two information boards in which the gender of alternatives was manipulated by the investigator (i.e., one board all girls and one board all boys). In addition, the presentation of the information was manipulated such that alternatives varied in the degree to which they were similar to the respondent.

Given the exploratory nature of this research, the present study does not contain any specific hypotheses. A series of questions are provided to guide this line of inquiry with reference to predictions that appear plausible on the basis of previous research.

1) **Do students hold "gender neutral" conceptions of friendships or does their thinking differ as a function of the friends' gender?** Given the wide range of possibilities that extend from this question, no specific predictions are made regarding differences or similarities between same- and cross-gender friendship conceptions. Despite the absence of explicit predictions, however, three possible patterns (described earlier) were explored including (a) a developmental lag pattern (evidenced by the interaction of grade and type of friendship), (b) a pattern of distinctions between "girls" and "boys" friendships (evidenced by the interaction between gender and type of friendship), and (c) the notion of cross-gender and same-gender friendships as different types of relationships (evidenced by a main effect for the type of friendship).

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Consistent with previous research, it was expected that student's same-gender friendship conceptions would differ as a function of both gender and grade level of the respondent (main effects). That is, it was expected that girls would place greater emphasis on dimensions and expectations surrounding intimacy and loyal commitment as compared to boys. In addition, it was expected that overall, younger children in this sample would articulate lower levels of friendship reasoning (evidenced by an emphasis on developmentally earlier dimensions) as compared to older students.

2) **Do the criteria for selection (nature of the predecisional information search) differ as a function of age or gender of the "to be chosen friend"?** In the absence of any existing data, no predictions are made with respect to variability in search (e.g., amount of information searched, nature of the search) that would be observed as a function of either the gender of friend being selected (same-gender versus cross-gender) or the gender of the participant. Consistent with Epstein's (1989) model, it was predicted that there would be an overall effect of age such that younger children would rely primarily on concrete and observable dimensions in selecting a hypothetical friend whereas older children would consider other internal dimensions in their predecision search (main effect of grade). In addition, given the bulk of evidence supporting a preference for same-gender friends in childhood and adolescence, it was expected that the dimension of "boy or girl" would be the dimension of primary importance in the predecision search and as such this dimension would be identified by participants as most important.

3) **Do individuals select both same-gender and cross-gender friends on the basis of similarity to self?** Given an extensive literature on the similarities which exist between same-gender friends it was expected that individuals would select hypothetical same-gender friend alternatives which are highly similar to themselves. Based on the belief that similarity in friendship serves a self-validation function, it was predicted that similarity would also play a significant role in the selection of cross-gender friends. No predictions were made regarding whether the role of similarity

would differ as a function of gender of participant. In light of conflicting evidence around the changing importance of similarity in friendship, no specific predictions were made regarding differences as a function participant's grade level.

Method

Participants

Participants included 176 students in grades 3, 6, 9 and 12 recruited from one elementary and one high school in a mid-sized Canadian city (population 210,000). Table 1 illustrates the distribution of participants on the basis of grade level, gender and average age. Participants were predominantly middle class with English as a first language. With regard to ethnic background, 88% of the present sample was White (of European descent) with the remaining 12% comprised of students from First Nations, Asian, East Indian, Latin, Black and Filipino backgrounds. Approximately two-thirds of the participants reported that they lived with both parents. The remaining third reported various living conditions including living with either a single parent (mother or father alone)(19%), a combination of one biological parent and one step-parent (10%), or a grand parent/other adult who served as a guardian (3%). Students were approached in a variety of classroom settings to request their participation (Appendix A). Only students who obtained parental consent (Appendix B) and who themselves agreed to participate (Appendix C) were included in the present investigation. The overall participation rate was 76%.

Procedure

In the present investigation data were collected between March and May of the school year. All data were collected by a single female investigator (the author). Students first participated in a group testing session (approximately 10-15 minutes)

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Table 1

<u>Distribution of Participants</u>

Grade Level	Number of Girls	Number of Boys	Average Age
Grade 3	20	24	8 years, 9 months
Grade 6	24	21	11 years, 10 months
Grade 9	26	20	14 years, 10 months
Grade 12	21	20	17 years, 10 months
Total	91	85	

involving a paper and pencil questionnaire designed to obtain demographic as well as other background information which is described below. Between one and three weeks following the group testing, students took part in a single individual session (approximately 35-45 minutes) consisting of two parts: (1) a structured interview regarding conceptions of friendship and (2) a set of information board tasks designed to examine issues of friendship selection (both parts are described below). The order of presentation for the two parts of the individual session was counterbalanced within grade and gender of participant. Thus, at each grade level, half of the boys and half of the girls began their individual session with an interview whereas the other half began with the information board tasks. The structured interview portion of the individual session was audiotaped for later transcription. At the start of both the group and individual sessions students were reminded that all responses were considered confidential.

Measures

Background Information. Participants were asked to provide information regarding basic demographics (e.g., age, ethnic heritage) as well as information regarding sibling relationships. In addition, a brief set of five items was included in the background questionnaire to obtain information about student's interests (e.g., favorite thing to do after school) and attitudes (e.g., caring about school). These items were used subsequently in the creation of the information board tasks for each participant (described below). Several filler items were also included in the background questionnaire. Appendix D contains the complete version of the questionnaire.

Friendship Conception Interview. In the first stage of the structured interview students were asked a series of 10 questions about their beliefs and expectations

regarding friendship (see Appendix E). The questions for this first stage of the Friendship Conception Interview were adapted from the work of Bowker (1986) and Bowker and Hymel (1987, 1991), reflecting general expectations for a friend (e.g., are friends important?) as well as specific friendship behaviors (e.g., making friends, staying friends, ending friendships). As described by Bowker (1987), questions were derived from previous theoretical and empirical work in the area of friendship conceptions (e.g., Damon, 1977; Selman, 1980, 1981).

Students were asked the identical set of 10 questions about both same- and cross-gender friends. The order of presentation of parallel interview questions was counterbalanced within grade and gender such that half the girls and half the boys at each grade began with a series of questions on same-gender friendship whereas the other half of girls and boys began with questions regarding cross-gender friendship. At the outset, participants were given a general set of instructions about the nature of the interview as follows:

> "*I am interested in understanding how and what students think about friendship. I am going to ask you some questions about friends. Some of the questions may sound the same, but I want to make sure that I understand what you think about friends.*"

Prior to answering each set of questions participants were given more specific instructions as follows:

> Same-gender: "*I'm going to ask you some questions about what you think about friendships with girls/boys (same gender as participant). I don't want you to think about or tell me about friends that you have had that are girls/boys (opposite gender as participant), I just want you to think about and tell me about friendships with girls/boys (same gender as participant).*"

> Cross-gender: "*I'm going to ask you some questions about what you think about friendships with girls/boys (opposite gender as participant). I don't want you to think about or tell me about people that you may have "a crush on" or that you've*

"gone out with", I just want you to think about and tell me about your friendships with girls/boys (opposite gender as participant)."

Participants' responses were subsequently transcribed verbatim. Each transcript was then compared to its original audiotape to ensure accuracy of the transcription process. Responses to the friendship conception questions were first segmented by the primary coder (the author) into separate or independent thought (coding) units each representing a single idea or belief about friendship. The primary coder was blind to the gender of the participant. Based on previous research (Berndt, 1982, Bigelow & LaGaipa, 1980; Bowker, 1986, Bowker & Hymel, 1987; Damon, 1977; Selman, 1981; Zarbatany, Ghesquiere & Mohr, 1992) thought units were coded into 28 categories and subcategories (displayed in Table 2) representing different dimensions of friendship conceptions (see items 1-19). Two additional categories which captured beliefs and expectations that arose within the context of cross-gender friendships (Taking the Cross-Gender Perspective and Cross-Gender Relationship Expectations) were added to the coding scheme. A final category of "not-codable" was also added to reflect thought units that were not covered by the existing coding scheme (Appendix F contains the complete coding scheme with extensive description of categories). At the completion of the coding process three categories had never been used by any participant including Dissimilarity (category 5a), Physical Possessions (category 7) and Associative Liking (category 15) and were therefore eliminated from further consideration. To examine the reliability of coding, a random sample of 25% of transcripts from each grade level was coded by a trained research assistant who was blind to the grade and gender of participants. Across the remaining 25 coding categories (including subcategories), agreement between raters ranged from 81% to

Table 2

Friendship Conception Coding Categories

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     (1) Proximity
     (2) Common Activities
     (3) Prior Interaction
     (4) Similarities
          (a) demographic
          (b) interests, beliefs, personality
     (5) Dissimilarities
          (a) demographic
          (b) interests, beliefs, personality
     (6) Physical Appearance and Characteristics
     (7) Physical Possessions
     (8) Character Admiration
     (9) Global Evaluation
     (10) Stimulation Value
     (11) Ego Reinforcement
     (12) Specific Social Behaviors
          (a) Helping
          (b) Sharing
          (c) Social Gesture
          (d) Absence of Negative Behaviors
     (13) Relationships with others
          (a) Liking and Friendship
          (b) General Compatibility and Companionship
     (14) Cooperation
     (15) Associative Liking
     (16) Acceptance
     (17) Loyalty and Commitment
     (18) Genuineness
     (19) Intimacy
     (20) Taking the Cross-Gender Perspective
     (21) Cross-Gender Relationship Expectations
     (22) Not-Codable

100% with an average of 94%. Kappa for the entire coding scheme was observed to be .93 (Bakeman & Gottman, 1986).

To ascertain the degree to which participants emphasized different dimensions or categories when discussing same- and cross-gender friendships, two sets of frequency scores were calculated for each of 24 coding categories (excluding the not-codable category): one set of frequencies for conceptions of same-gender friendships and the other set for conceptions of cross-gender friendships. To control for differing numbers of ideas expressed by each participant, frequency scores were converted into proportions by dividing by the total number of ideas expressed by each participant in response to a given set of questions (same- or cross-gender). Proportion scores were then converted into percentages (i.e., X 100) for easier interpretability, with higher percentage scores reflecting greater emphasis placed on a given dimension or category when discussing either same- or cross-gender friendships. Thus, a score of 3 for a given category in the same-gender friendship interview indicates that this category constituted 3% of the total conceptions offered by a given student in discussing same-gender friendship expectations.

Cross-Gender Friendship: Beliefs and Experience. In the second phase of the structured interview, participants were asked a series of both closed and open-ended questions designed to directly access beliefs about the nature of cross-gender friendships as well as their experience with cross-gender friends. All responses to this direct line of questioning were transcribed verbatim with transcripts checked against the original audiotape. Participants were first asked about their cross-gender friendship beliefs and subsequently asked to describe their experiences with cross-

gender friendships. The specific questions used and the scoring employed for each, is presented below:

> (1) *Is there a difference between friendships that you have with girls/boys (opposite gender to respondent) and friendships that you have with girls/boys (same gender as respondent)?*

Responses to Question #1 were initially coded (by the author) on the basis of whether the participant was describing a similarity or difference between same- and cross-gender friendships, and then further categorized on the basis of the 28 item coding scheme (including subcategories) that was described above for the Friendship Conception Interview (Table 2). A random sample of 25% of these responses within each grade was also coded by a trained research assistant who was blind to the gender and grade of the participant. Across coding categories, average inter-rater agreement was 92% with Cohen's Kappa = .94.

> (2) *Is it possible to have a girl/boy (opposite gender to respondent) as a friend without him/her having a crush on you or you having a crush on him/her, without wanting something more from the friendship?*

> (3) *Is it possible to have a girl/boy (opposite gender to respondent) as a best friend?*

Responses to the second and third questions regarding beliefs about whether it was possible to have a friend of the other gender without romantic implications were coded into the categories of "*yes*", "*no*" or "*maybe*".

> (4) *Do you have friends that are girls/boys (opposite gender to respondent)?*
>   Probes: *Are you still friends with this person?*
>   *Are you thinking about one person or more than one person?*

With regard to measuring participants experience with cross-gender friendships, responses to Question #4 were coded in three ways: (1) Has there been experience with a cross-gender friend? coded as "*yes* or "*no*" (2) What is the timing of the

friendship, "*current*" or "*prior*"? and (3) Has the participant had experience with "*one*" or "*more than one*" cross-gender friendship?

(5) *How long have you been friends with that person?* Responses to the question of length of friendship were coded in terms of the number of years reported.

(6) *Is this person a friend at home (outside school) or a friend at school?* The location of the friendship experiences were coded categorically by dividing responses into "*home or out of school*", "*in school*", "*both in and out of school*".

(7) *Is this person the same age as you or older or younger?* Finally, responses regarding the age of the cross-gender friend were divided into the seven categories of "*same age*", "*younger*", "*older*", "*same and younger*", "*same and older*", "*older and younger*", "*same, older and younger*".

Friendship Selection Task: Information Board. In the second stage of the individual session students participated in a series of hypothetical decision-making tasks designed to explore issues of same- and cross-gender friendship selection. Specifically, using a procedure previously employed with children to examine decision-making (Davidson, 1991a, 1991b, 1996; Klayman, 1985) students took part in an information board task in which they were asked to use facts they uncovered to evaluate a set of alternative people and select someone they would like to have as a friend. In total, students saw three information boards. Each participant began with a training board (described below) followed by two experimental boards; one board tapping the selection of same-gender friends and one tapping the selection of cross-gender friends. The order of presentation of these two boards was counterbalanced within grade and gender such that half of the boys and half of the girls at each grade

level started with a same-gender experimental board and the remaining half of boys and girls started with a cross-gender experimental board.

Each of the two experimental information board "kits" contained a 6 X 7 grid or matrix-like board consisting of six rows of potential friends (down the left hand side) and seven dimensions of friendship (across the top columns). At the intersection of these rows and columns were squares which contained information about a given potential friend for a particular friendship dimension. For these information boards, a wooden apparatus was created (See Appendix G), with small window cut-outs for each information square. Each window was fitted with a wooden "cover" that was used to initially conceal the information displayed underneath.

Presentation of the experimental information boards was preceded by a simpler, training board. The training board consisted of a 3 X 3 matrix presented on laminated cardboard, with small laminated square pieces that served as "covers" for each of the nine information windows. The first board was designed as a warm-up task to ensure that participants understood instructions and had practice with the general paradigm. Accordingly, the training board (See Figure 1) involved the selection of a bicycle on a board where there were three alternative bicycles to choose from (Bikes A, B and C) and three dimensions of information to potentially be searched (Color, Type, Price). In keeping with previous decision-making research which has involved the use of an information board with children (e.g., Davidson, 1991a, 1991b, 1996) the investigator removed individual "covers" at the request of the participant. Once a piece of information was uncovered it remained in view throughout the search and decision-making process. Participants were given the following instructions:

Figure 1. Practice Board for the Information Board Task

"I am going to have you play sort of a game in which you will choose a bike. I would like you to pretend for a minute that you have just gone into a bike store and you want to buy a new bike. As you can see on this board, down the side there are a list of bikes (investigator points down the side of the board) *and you will have to decide on which one you would prefer the most. Underneath each of these cards or covers is a piece of information about the specific bike. Information like color, type of bike and price* (investigator points to each of the dimensions across the top). *For example, under this card you would find out about the color of Bike A* (points to appropriate square). *When you want to see a piece of information you should point to it and I'll show it to you and read it out loud to you. You can look at as many pieces of information as you would like but you must look at more than one piece of information before you make your decision. After a card is removed it doesn't have to go back on.* (After the second item has been uncovered) *When you think you have enough information to make a decision, stop and let me know which bike you would most like to have."*

Following the warm-up task, participants were presented with each of the two experimental information boards, in turn, each board containing six alternative people (Person A to Person F) and seven dimensions of information. The content of the seven dimensions of information were derived from previous research on friendship selection, person perception and interpersonal attraction (see introduction review) to reflect both concrete, observable features (e.g., age, gender, activity preferences) as well as "deeper", more abstract psychological features (e.g., attitudes and personal characteristics). The specific dimensions or features presented were as follows:

Concrete Features:
(1) Gender (female or male)
(2) Age (same age or older)
(3) Favorite thing to do at home (watch t.v. or talk on the phone)
(4) Favorite thing to do after school (play sports or hang out with a friend)

Deeper Features:
(5) How much they care about school (care a lot or care a little)
(6) What they like most in a person (likes to laugh and joke or trust to keep a secret)
(7) What they care about most in a friendship (someone to do things with or someone who will listen to me)

On each of the two experimental boards participants were required to search information and choose the person they would most like to have as a friend from a set of alternatives. The way in which various pieces of information were presented on the two experimental information boards was manipulated in two important ways. First, the "gender" dimension for one of the experimental information boards contained only the word "male" whereas the "gender" dimension on the second board contained only the word "female". Thus, all of the alternative people on one board were the same gender as the participant whereas all of the alternative people on the second board were the opposite gender of the participant. Given the present interest in using the information board methodology to determine whether friendship selection was similar or different across same- and cross-gender choices, it was necessary to reveal the gender of the alternatives on each board at the outset of the task to ensure that participants understood that their selection was in fact same- or cross-gender in nature. Despite the necessity of revealing gender to preserve the integrity of the task, the salience or priority assigned to gender as an initial consideration in the selection of a friend was also of interest. Accordingly, before any search had taken place on the first experimental board, participants were asked "What would be the first thing you might want to know about these people before you could decide who you would most like to have as a friend?" to explore the salience of gender as a criterion for friendship selection.

Second, using information obtained from the background questionnaire (Appendix D) the layout of the information on the board was systematically manipulated for each student. Specifically, self-reported choices on each of the seven dimensions were used to manipulate information on the decision board such that different

alternative "friends" varied in the degree to which they were similar to the respondent. As can be seen in Figure 2, one alternative "friend" on the information board matched the profile provided by the participant. That is, information on each of the dimensions (except gender) for one alternative "friend" was exactly matched to the participant's self-reported ratings. A second alternative "friend" was created to be exactly opposite to the ratings provided by the participant. The remaining four alternative "friends" on the board were of varying similarity to the participant's profile. Specifically, two of the remaining four alternatives differed from the participant on the basis of two pieces of information (one concrete and one deeper psychological feature). The final two alternatives differed from the self-reports of the participant on four of the dimensions (two concrete and two deeper psychological features). This manipulation of features was consistent across all participants and is illustrated in Figure 2.

Given the fact that each participant varied in terms of their self-evaluations on each of the seven dimensions, two unique matrices had to be generated, printed, and inserted into the wooden apparatus (Appendix G) for each participant. The ordering of dimensions and the placement of different alternatives was systematically varied such that each dimension moved around to different positions across the top (first through seventh) and each alternative moved around to different positions along the right side (first through sixth). For example, the dimension of "age" did not always appear in the second column and the "friend" alternative who was exactly similar to the profile of the participant did not always appear in the first row as Person "A" (as depicted in Figure 2). Thus, within a given grade level, each participant had information boards that were organized differently. For a given participant, however, the arrangement of the seven dimensions across the top was identical for their same- and cross-gender information

	What they care about most in a friendship	Age	Favorite thing to do at home	Male or Female	What they most like in a person	Favorite thing to do after school	How much they care about school
Person A	Same	Same	Same	Fixed	Same	Same	Same
Person B	Different	Same	Same	Fixed	Same	Different	Same
Person C	Different	Same	Different	Fixed	Different	Different	Same
Person D	Different	Different	Different	Fixed	Different	Different	Different
Person E	Same	Different	Different	Fixed	Different	Same	Different
Person F	Same	Different	Same	Fixed	Same	Same	Different

Note: Same = Same as participant's profile; Different = Opposite to participant's profile; Fixed = Fixed at either Boy or Girl depending on board designation.

Figure 2. Manipulation of Similarity Information on the Experimental Boards

boards whereas the positioning of alternative "friends" (e.g., one alternative exactly the same, one alternative exactly opposite) varied across the same- and cross-gender information boards. Figure 3 depicts one example of how information on the experimental board was organized.

When an experimental information board was placed in front of them, participants were given the following instructions:

"This time I'm going to have you play sort of a game in which you will choose someone you would most prefer or most like to have as a friend. Pretend for a minute that you just moved into a new neighborhood and you want to pick someone to have as a friend. As you can see on this board, down the side there are a list of possible friends and you will have to decide on which one you would prefer the most (investigator points down the left side). *Underneath each of these wooden squares is a piece of information about that person. You can find out information like "how much this person cares about school", "their favorite thing to do at home", "their age", "their favorite thing to do after school", "what they most like in a person", "what they care about most in a friendship" and "whether they are a male or female"* (investigator points and reads each dimension heading aloud). *For example, what would be the first thing you might want to know about these people before you could decide who you would most like to have as a friend?* (only asked on the first board)"

"Okay now, I am going to show you that all of these people are females/males (same- or opposite-gender to the participant depending on the condition of counterbalance). *You can go ahead and start looking at more information for each of these people. When you want to see a piece of information you should point to it and I'll show it to you and read it out loud to you. Once a piece is uncovered the wooden piece can stay off. You can look at as many pieces of information as you would like but you must look at more than one piece of information before you make your decision.* (After the second item revealed) *When you think you have enough information to make a decision, stop and let me know which friend you would choose."*

Upon making a selection, participants were asked, "Tell me why you decided on that person? What did you like about that person?" Responses to the selection question were audiotaped and subsequently transcribed verbatim. Responses were explored for the purpose of identifying whether students actually used information from the information board to make their choice or made decisions based on some other idiosyncratic basis. All participants were observed to provide reasons for their choices

	What they care about most in a friendship	Age	Favorite thing to do at home	Male or Female	What they most like in a person	Favorite thing to do after school	How much they care about school
Person A	Someone to listen to me	Same age as you	Talk on the phone	Female	Trust to keep a secret	Hang out with a friend	Care a lot
Person B	Someone to do things with	Same age as you	Talk on the phone	Female	Trust to keep a secret	Play sports	Care a lot
Person C	Someone to do things with	Same age as you	Watch T.V.	Female	Likes to laugh and joke	Play sports	Care a lot
Person D	Someone to do things with	Older than you	Watch T.V.	Female	Likes to laugh and joke	Play sports	Care a little
Person E	Someone to listen to me	Older than you	Watch T.V.	Female	Likes to laugh and joke	Hang out with a friend	Care a little
Person F	Someone to listen to me	Older than you	Talk on the phone	Female	Trust to keep a secret	Hang out with a friend	Care a little

Figure 3. Sample Experimental Information Board

that were entirely based on information viewed on the board. The verbal responses were not formally coded.

Coding the Information Board Task. Prior to engaging in their pre-decisional search of the first experimental board, participants responded to the question of "What would be the first thing you would want to know about these people?" Responses were coded into one of seven categories representing each of the seven dimensions of information on the board. As noted previously, of particular interest was whether gender was a primary or initial consideration in the selection of a friend. Following the initial selection of a dimension, gender of alternatives on the board was revealed and participants commenced their pre-decision search of information to select a potential friend.

As participants engaged in their search, the investigator coded each move on a blank grid or coding sheet which was formatted identically to that of the participant's board. That is, each move was marked with it's appropriate numerical sequence. If a participant asked first to look at information for Alternative "A" under the dimension of "Age" then the appropriate square on the investigators blank grid would be coded with a "1" to mark it as the first piece of information explored. Subsequent search moves were marked in numerical sequence until the participant selected an alternative.

Utilizing data recorded on this grid-like coding sheet, a set of key measures was identified with respect to pre-decisional information search and similarity of selection. In keeping with previous research utilizing the information board task (e.g., Davidson, 1991a, 1991b, 1996), the data recorded on the coding sheet were used to identify several predecisional search indices and similarity of final selection. As described below, measures included (a) first dimension accessed, (b) total amount of information

searched, (c) proportionate use of each dimension, (d) nature of search moves employed, and (e) degree of similarity between self and final alternative selected. Parallel sets of measures were created for the same- and cross-gender selection boards.

To begin, the first dimension accessed in each of the pre-decisional searches was recorded. Second, the total amount of information searched on each board was calculated as the number of pieces or squares uncovered up to 36 possible squares. Third, the degree to which each participant considered each dimension (relative to all information searched) was computed as the sum of the squares uncovered within each dimension (column) divided by the total amount of information searched on the entire board, multiplied by 100 (to create percentage scores). Thus, larger dimensional percentage scores reflect more search time spent or greater consideration given to a particular dimension. Following Davidson (1991a, 1991b, 1996), three different search patterns were computed on each board for each participant, based on the direction of moves (i.e., request to uncover another square) across rows and columns on the board. Interdimensional moves, reflecting a search within the same person but across dimensions, was computed as the number of times a participant asked to see another square within the same row. Intradimensional moves, reflecting a search within the same dimension but across persons, was computed as the number of times a participant asked to see another square within the same column. Finally, the number of shifts or requests for viewing a square which was part of both a new dimension (column) and a new person (row), were computed. To control for differing numbers of moves made across participants, the number of each type of move was divided by the total number of moves to create a proportion score. Proportion scores were converted

to percentages (i.e., multiplied by 100) where higher percentage scores indicated a greater reliance on a given movement strategy when searching information on the board.

Finally, in an effort to explore the degree of similarity between self and other, the participant's profile of self-ratings (Appendix D) was compared to the profile of the "chosen" hypothetical friend on each board. The degree of similarity was calculated as the number of pieces of information which were a match between the self and "friend" descriptors, divided by the number of pieces of information searched for that particular person on the information board. For example, if all six squares for the chosen "friend" had been uncovered in the search, and each of the six descriptors matched the self-descriptions of the participant, the similarity score would be six out of six or 1.0. If a participant chose an alternative after searching only three pieces of information for that alternative all of which matched his/her own profile, then the similarity rating would also be computed as 1.0 (three pieces matched/three pieces searched). However, if an alternative was chosen after five pieces of information had been searched within that row, of which only three pieces matched the participants own profile, then the participant received a similarity score of 3/5 or .60. Thus, similarity scores ranged from 0 to 1.0 with higher scores indicative of greater similarity between the participant and their chosen "friend".

<center>Results</center>

General Overview of Analyses

In order to explore the question of whether conceptions of friendship and the selection of friends varied as a function of the grade and/or gender of the respondent as well as the type of the friendship (same-gender versus cross-gender), analyses of

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variance as well as techniques appropriate for the analysis of categorical data were utilized. The results section is divided into three parts to describe analyses conducted in the areas of (1) friendship conceptions, (2) participant's beliefs and experiences with cross-gender friendships and (3) friendship selection (information boards).

Friendship Conception Interview

Overview. Variations in the degree to which participants conceptualized friendships with same-gender versus cross-gender peers differently were examined using a 4 (Grade level: 3, 6, 9, 12) X 2 (Gender of the participant: girl, boy) X 2 (Friendship Type: same-gender, cross-gender) Multivariate Repeated Measures Analysis of Variance with Grade and Gender as between-subject factors, Friendship type as a within-subject factor and percentage scores on friendship dimensions as dependent measures. Significant effects at the multivariate level were then examined using a series of 4 (Grade level: 3, 6, 9, 12) X 2 (Gender of the participant: girl, boy) X 2 (Friendship Type: same-gender, cross-gender) Repeated Measures Analyses of Variance in which individual dimensions of friendship were considered at a univariate level. Two dimensions of friendship were available for cross-gender friendship conceptions only, including (1) Taking the Cross-Gender Perspective and (2) Cross-Gender Relationship Expectations. Accordingly, variability in these two dimensions was analyzed using a 4 (Grade level: 3, 6, 9, 12) X 2 (Gender of the participant: girl, boy) Factorial Analyses of Variance with Grade and Gender as between-subject factors. Finally, to explore whether the presence of a cross-gender sibling created different expectations for same- and cross-gender friendship, a 2 (Friendship Type: same-gender, cross-gender) X 2 (Sibling composition: presence of a cross-gender sibling, absence of cross-gender siblings) Multivariate Repeated Measures Analysis of

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Variance was conducted using percentage scores on the friendship dimensions as dependent measures. In addition, sibling effects for (1) taking the cross-gender perspective and (2) cross-gender relationship expectations were examined with independent group t-tests.

In several cases, post-hoc tests (Tukey B and Dependent t-tests) were conducted to explore simple effects. Given the number of friendship dimensions being considered at the univariate level, an alpha level of .01 was used to determine significant effects for the Analysis of Variance portion of the friendship conception analyses with statistical trends reported when $p<.05$.

Preliminary Analyses. Inspection of the mean percentage scores across friendship categories or dimensions discussed in both same- and cross-gender friendship interviews revealed that several dimensions had been mentioned only rarely. Dimensions with overall mean scores less than 1% for both same- and cross-gender friendship interviews were considered too infrequent and were excluded from further analyses: proximity (1), prior interaction (3), similarity (demographic, 4a), dissimilarity - attitudes and interests (5b), physical appearance (6), social behavior - sharing (12b) and cooperation (14). Frequencies for the remaining set of 15 dimensions were positively skewed, and therefore normalized using a square root transformation. All analyses were conducted with these transformed scores, although means and standard deviations are expressed in raw score form. The 15 friendship dimension categories that were maintained in subsequent analyses included: Common Activities, Similarities in attitudes/interests, Character Admiration, Global Evaluation, Stimulation Value, Ego Reinforcement, Helping, Social Gestures, Absence of Negative Behavior, Liking and

Friendship, Compatibility and Companionship, Acceptance, Loyalty and Commitment, Genuineness and Intimacy.

Primary Analysis. Results of the Grade X Gender X Friendship Type repeated measures MANOVA revealed significant main effects of Grade (Pillai's=.33, $\underline{F}$(45,462)=4.58, $\underline{p}$<.001), Gender (Pillai's=.33, $\underline{F}$(15,152)=5.07, $\underline{p}$<.001) and Friendship Type (Pillai's=.41, $\underline{F}$(15,152=6.97, $\underline{p}$<.001). In addition, significant two-way interactions were observed between Friendship Type and both Grade (Pillai's = .41, $\underline{F}$(45,462)=1.61, p=.01) and Gender (Pillai's = .28,$\underline{F}$(15,152)=3.92, $\underline{p}$<.001) at the multivariate level. Neither the 2-way interaction between Grade and Gender (Pillai's=.32, $\underline{F}$(45,462=1.12, $\underline{p}$=ns) nor the 3-way interaction (Pillai's=.27, $\underline{F}$(45,462=1.01, $\underline{p}$=ns) were significant at the multivariate level. The significant main effects (Grade, Gender and Friendship Type) and 2-way interactions (Friendship Type X Grade, Friendship Type X Gender) were explored at the univariate level.

Main Effects of Grade. As illustrated in Table 3, 11 out of the 15 friendship dimensions were observed to vary as a function of grade. To begin, with increasing age participants more frequently included references to the importance of similarity in attitudes/interests ($\underline{F}$(3,166)=9.62, $\underline{p}$<.001), character admiration ($\underline{F}$(3,166)=5.23, $\underline{p}$<.01), companionship and compatibility ($\underline{F}$(3,166)=6.32, $\underline{p}$<.001), acceptance ($\underline{F}$(3,166)=9.48, $\underline{p}$<.001), loyalty and commitment $\underline{F}$(3,166)=8.15, $\underline{p}$<.001), genuineness ($\underline{F}$(3,166)=8.52), $\underline{p}$<.001), and intimacy ($\underline{F}$(3,166)=45.49, $\underline{p}$<.001) when discussing both same- and cross-gender friendships. In contrast, students in the higher grade levels spent less time in their interviews discussing the necessity for global positive evaluation ($\underline{F}$(3,166)=20.61, $\underline{p}$<.001), helping behavior ($\underline{F}$(3,166)=13.07, $\underline{p}$<.001), liking ($\underline{F}$(3,166)=6.60, $\underline{p}$<.001), and the absence of negative behavior ($\underline{F}$(3,166)=23.17,

Table 3
Dimensions of Friendship Conception: Mean Percentages and Standard Deviations as a
Function of Grade of Participant

Dimension		Grade 3 (n=43)	Grade 6 (n=45)	Grade 9 (n=45)	Grade 12 (n=41)	Post-hoc Results
Common Activities	M (SD)	16.72 (9.54)	16.75 (7.59)	14.85 (10.02)	14.02 (8.41)	
Similarity of Attitudes/Interests ***	M (SD)	2.75 (5.03)	5.33 (6.54)	7.71 (6.67)	6.05 (5.01)	Gr. 3 < Gr. 6, 9, 12 Gr. 6 < Gr. 9
Character Admiration **	M (SD)	4.12 (5.89)	5.18 (5.27)	7.32 (5.07)	5.43 (4.67)	Gr. 3, 6 < Gr. 9
Global Evaluation ***	M (SD)	8.85 (8.26)	8.50 (7.24)	3.18 (4.04)	1.30 (3.05)	Gr. 3, 6 > Gr. 9, 12
Stimulation Value	M (SD)	3.14 (3.71)	3.72 (3.75)	5.28 (6.09)	5.29 (5.09)	
Ego Reinforcement	M (SD)	3.59 (5.91)	2.64 (4.73)	1.24 (2.23)	1.65 (2.62)	
Helping ***	M (SD)	4.76 (5.56)	2.44 (4.10)	.68 (1.32)	.70 (1.66)	Gr. 3 > Gr. 6, 9, 12
Social Gestures	M (SD)	6.37 (6.80)	5.30 (5.91)	4.25 (5.52)	4.60 (5.09)	
Absence of Negative Behavior ***	M (SD)	15.08 (9.00)	14.24 (8.21)	7.41 (5.62)	4.94 (4.38)	Gr. 3, 6 > Gr. 9, 12
Liking ***	M (SD)	4.31 (5.01)	2.37 (3.60)	1.51 (1.95)	.95 (1.89)	Gr. 3 > Gr. 6, 9, 12
Companionship ***	M (SD)	1.89 (2.58)	1.96 (2.37)	2.77 (4.50)	4.76 (4.20)	Gr. 3, 6, 12 < Gr. 12
Acceptance ***	M (SD)	.20 (.99)	.70 (1.62)	1.29 (2.46)	2.98 (4.08)	Gr. 3, 6, 9 < Gr. 12
Loyalty and Commitment ***	M (SD)	9.07 (11.81)	11.17 (9.44)	14.85 (11.13)	17.19 (10.02)	Gr. 3 < Gr. 9, 12 Gr. 6 < Gr. 12
Genuineness **	M (SD)	1.80 (5.17)	2.91 (4.15)	4.52 (5.42)	5.79 (5.11)	Gr. 3 < Gr. 9, 12 Gr. 6 < Gr.12
Intimacy ***	M (SD)	1.87 (3.38)	3.29 (5.26)	12.24 (9.26)	12.95 (8.49)	Gr. 3, 6 < Gr. 9, 12

Note.   *** p<.001 ** p<.01

p<.001) in describing their conceptions of same- and cross-gender friendship. In general, when discussing different features that are important in their friendships, younger students were more focused on specific social behaviors (i.e., helping, restraint of negative behavior) and general or global evaluations (i.e., liking, niceness) whereas older students highlighted personality features (i.e., character admiration and similarity in attitudes/interests, trustworthiness, genuineness) as well as interpersonal qualities in the relationship (i.e., companionship, acceptance, intimacy).

Main Effects of Gender. In discussions of same- and cross-gender friendship, girls and boys were observed to place differential emphasis on seven of the 15 friendship dimensions. In particular, as compared to girls, boys more commonly included references to common activities ($F(1,166)=13.16$, $p<.001$) and companionship ($F(1,166)=7.27$, $p<.01$). In contrast, girls placed greater emphasis on global evaluations ($F(1,166)=7.07$, $p<.01$), loyalty and commitment ($F(1,166)=17.02$, $p<.001$), genuineness ($F(1,166)=11.33$, $p<.001$), and intimacy ($F(1,166)=40.34$, $p<.001$) when describing their beliefs about both same- and cross-gender friendships. Trends were also noted for boys (as compared to girls) to place greater emphasis on similarity in attitudes/interests ($F(1,166)=6.20$, $p< .05$) and the absence of negative behavior ($F(1,166)=3.73$, $p=.05$) and for girls (as compared to boys) to place greater emphasis on acceptance $F(1,166)=4.42$, $p<.05$). In sum, boys were observed to place importance on getting along well and doing things together without any negative social behavior (e.g., hitting) whereas girls more commonly talked about friendship in terms of niceness, being accepted by friends, being trustworthy, genuine and being available to share personal matters. Table 4 depicts the means and standard deviations for boys and girls.

Table 4
Dimensions of Friendship Conception: Mean Percentages and Standard Deviations as a
Function of Gender of Participant

Dimension	Girls (n=90)		Boys (n=84)	
	M	(SD)	M	(SD)
Common Activities ***	12.72	(7.22)	18.70	(9.60)
Similarity of Attitudes/Interests *	4.24	(4.82)	6.81	(7.03)
Character Admiration	5.14	(4.92)	5.80	(5.76)
Global Evaluation **	6.22	(6.42)	4.76	(7.23)
Stimulation Value	4.52	(4.68)	4.16	(4.99)
Ego Reinforcement	2.35	(3.61)	2.21	(4.81)
Helping	2.06	(3.92)	2.24	(4.01)
Social Gestures	4.90	(5.68)	5.37	(6.09)
Absence of Negative Behavior *	9.24	(7.25)	11.83	(9.04)
Liking	2.35	(3.28)	2.23	(3.89)
Companionship **	2.08	(2.91)	3.59	(4.24)
Acceptance *	1.60	(2.72)	.91	(2.67)
Loyalty and Commitment ***	16.38	(11.19)	9.43	(9.63)
Genuineness ***	4.85	(5.61)	2.54	(4.35)
Intimacy ***	10.51	(9.92)	4.33	(6.20)

Note. *** p<.001 ** p<.01 * p<.05

<u>Main Effects of Friendship Type</u>. Of primary interest was the issue of whether children and adolescents hold different beliefs for their same- and cross-gender friendships. As illustrated in Table 5, results of the present analyses revealed significant differences in the importance placed on various friendship dimensions across same-gender and cross-gender friendships. On the one hand, when articulating their beliefs about same-gender friendships participants were observed to spend more time talking about issues of similarity in attitudes/interests ($\underline{F}$(1,166)=20.32, $\underline{p}$<.001), liking ($\underline{F}$(1,166)=10.51, $\underline{p}$<.001), loyalty and commitment ($\underline{F}$(1,166)=23.94, $\underline{p}$<.001) and intimacy ($\underline{F}$(1,166)=19.22, $\underline{p}$<.001) as compared to the beliefs they expressed about cross-gender friendships. On the other hand, participant reports about their cross-gender friendships were more focused on character admiration ($\underline{F}$(1,166)=7.21, $\underline{p}$<.01), global evaluations ($\underline{F}$(1,166)=8.17, $\underline{p}$<.01) and ego reinforcement ($\underline{F}$(1,166)=5.23, $\underline{p}$<.05) as compared to their reports of same-gender friendships, although the effect for ego reinforcement was only marginal. Thus, the present analyses revealed that students more commonly expected mutual liking, similarity as well as some of the more complex features of friendship such as loyalty and intimacy from their same-gender friendships. In contrast, student's expectations for cross-gender friendship showed greater emphasis on being nice, having good character and not doing anything to degrade a friend's ego. Several of these main effects were observed to vary for boys and girls, as well as across different grade levels, as described below.

<u>The Interaction of Friendship and Grade</u>. Following the significant Friendship X Grade interactions observed at the multivariate level, univariate analyses indicated significant Friendship X Grade interactions for one of the 15 friendship dimensions. Although reference to similarity in attitudes/interests was significantly greater for same-

Table 5

Dimensions of Friendship Conception: Mean Percentages and Standard Deviations as a
Function of Same and Cross-Gender Friendship

Dimension	Same-Gender (n=174)		Cross-Gender (n=174)	
	M	(SD)	M	(SD)
Common Activities	16.16	(11.55)	15.06	(10.02)
Similarity of Attitudes/Interests ***	6.79	(8.30)	4.17	(6.17)
Character Admiration **	4.51	(5.42)	6.41	(7.44)
Global Evaluation **	4.31	(6.04)	6.71	(9.62)
Stimulation Value	4.25	(5.42)	4.44	(6.31)
Ego Reinforcement *	1.70	(4.96)	2.86	(6.01)
Helping	2.04	(4.40)	2.26	(5.31)
Social Gestures	4.89	(6.11)	5.36	(7.75)
Absence of Negative Behavior	10.12	(9.11)	10.86	(10.64)
Liking ***	2.88	(4.85)	1.71	(4.16)
Companionship	2.84	(4.26)	2.78	(4.97)
Acceptance	1.46	(3.60)	1.07	(3.12)
Loyalty and Commitment ***	14.76	(12.74)	11.28	(12.06)
Genuineness	3.81	(5.64)	3.65	(5.92)
Intimacy ***	8.98	(10.96)	6.08	(8.91)

Note. *** p<.001 ** p<.01 * p<.05

gender than cross-gender friendships, this main effect was qualified by a significant interaction with Grade ($F(3,166)=4.14$, $p<.01$). An examination of the means (see Figure 4a) and subsequent dependent t-tests revealed that the effect of Friendship was significant for students in grade 6 ($t(44)=-2.78$, $p<.01$), grade 9 ($t(44)=-3.96$, $p<.001$) and grade 12 ($t(40)=-2.70$, $p<.01$) but not for the youngest group of grade 3's ($t<1$). The youngest students in this sample did not place differential emphasis on their expectation of similarity in attitudes/interests for same- and cross-gender friendships.

For two of the 15 friendship dimensions the Friendship X Grade interaction was found to be marginally significant. First, a trend was noted for the Friendship X Grade interaction ($F(3,166)=2.84$, $p<.05$) observed for common activities. Although no main effect of Friendship was observed for common activities, Figure 4b illustrates that students in grade 3 ($t(42)=-2.23$, $p<.05$) and grade 6 ($t(44)=-1.82$, $p<.10$) tended to place greater emphasis on common activities in their discussion of same-gender as compared to cross-gender friendships. In contrast, no differential emphasis on common activities was observed for students in grades 9 and 12 ($t's < 1.2$). Second, a trend was observed for the Friendship X Grade interaction involving the dimension of loyalty and commitment ($F(3,166)=2.57$, $p=.05$) (see Figure 4c). Although loyalty and commitment received significantly greater attention in discussions of same-gender as compared to cross-gender friendships, this effect was only significant for students in grade 3 ($t(42)=-2.44$, $p<.02$), grade 6 ($t(44)=-3.57$, $p<.001$) and grade 9 ($t(44)=-3.42$, $p<.001$) and was not observed for the oldest students in this sample ($t<1$). Grade 12 students placed a similar degree of emphasis on loyalty and commitment in friendships regardless of the nature of the relationship (same- versus cross-gender).

Figure 4

Interactions between Friendship Type and Grade of Participant for Common Activities, Similarity in Attitudes/Interests and Loyalty and Commitment

Figure 4a - Similarity in Attitudes/Interests
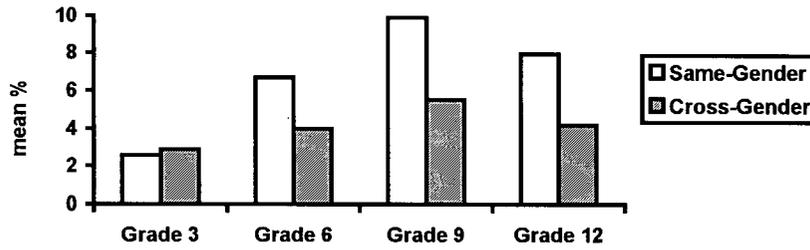
Figure 4b - Common Activities
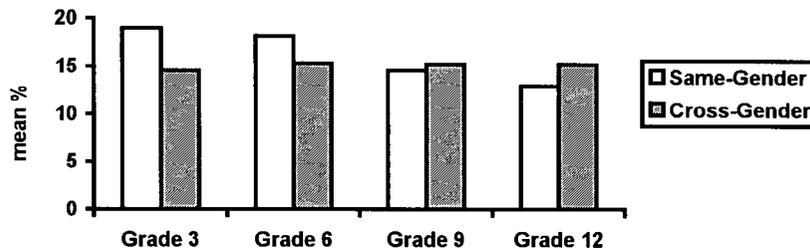
Figure 4c - Loyalty and Commitment
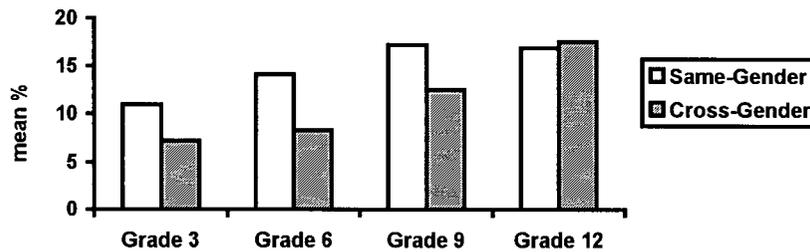
The Interaction of Friendship and Gender. Findings revealed that several of the main effects of Gender were qualified by interactions with the type of friendship being discussed. In particular, although a main effect of gender favoring boys was observed for common activities and the absence of negative behavior, reports of both of these dimensions were observed to vary as a function of Friendship type (common activities: $F(1,166)=14.88$, $p<.001$)[1]; absence of negative behavior: $F(1,166)=9.43$, $p<.01$). As illustrated in Figure 5a and 5b, a comparison of the means using dependent t-tests revealed that boys placed greater emphasis on common activities and the absence of negative behavior when they spoke about same-gender friendships as compared to their cross-gender friendships (common activities: $t(83)=-3.21$, $p<.01$; absence of negative behavior $t(83)= -2.23$, $p<.05$). Girls demonstrated an opposite pattern, placing greater emphasis on the importance of common activities and the need for the absence of negative behavior when discussing their cross-gender, as opposed to same-gender friendships (common activities: $t(89)=2.24$, $p<.05$); absence of negative behavior ($t(89)=2.06$, $p<.05$).   Thus, both girls and boys emphasized common activities and the absence of negative behavior in friendships with boys. A marginal interaction between Friendship and Gender was also evident for reports of ego reinforcement ($F(1,166)=4.72$, $p<.05$)(see Figure 5c). Results of post-hoc analyses indicated that although boys' reports of the importance of ego reinforcement did not vary as a function of the nature of friendship ($t<1$), girls more commonly discussed the need for friends not to put them down when articulating their beliefs about cross-gender friendships, as compared to same-gender ($t(89)=3.36$, $p<.001$).

Finally, interactions between Friendship and Gender (see Figures 5d and 5e) were also evident for reported expectations for loyalty and commitment as well as

Figure 5

Interactions between Friendship Type and Gender of the Participant for Common Activities, Absence of Negative Behavior, Ego Reinforcement, Loyalty and Commitment and Intimacy

Figure 5a - Common Activities
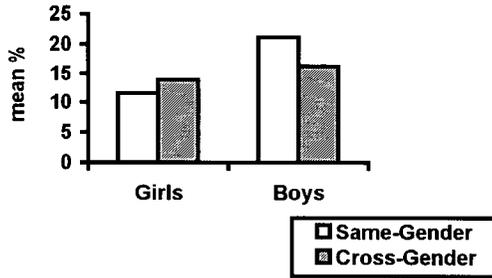
Figure 5b - Absence of Negative Behavior
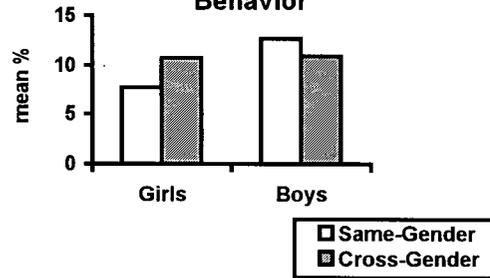
Figure 5c - Ego Reinforcement
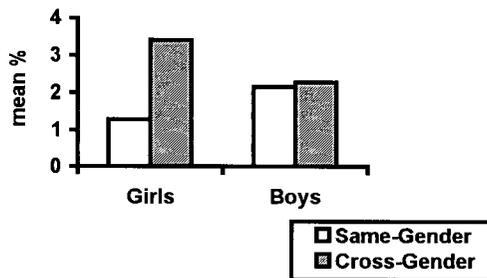
Figure 5d - Loyalty and Commitment
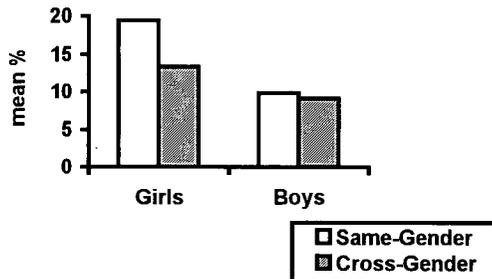
Figure 5e - Intimacy
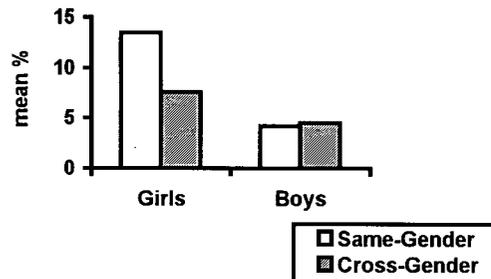
intimacy (loyalty and commitment: $F(1,166)=5.86$, $p<.05$); intimacy: $F(1,166)=17.70$, $p<.001$), although the interaction for loyalty and commitment was only marginal. Post-hoc tests indicated that whereas girls appeared to make a distinction between same- and cross-gender friendships by holding greater expectations of both loyalty and commitment ($t(89)=-5.42$, $p<.001$) and intimacy ($t(89)=-6.04$, $p<.001$) in same-gender friendships, boys did not make this distinction. Specifically, although reports of loyalty and commitment tended to be higher in boy's discussions of same-gender friendships (as compared to cross-gender) ($t(83)=-1.73$, $p<.09$), boy's reports of intimacy did not vary as a function of whether they were discussing same- or cross-gender friendship ($t<1$).

Taking the Cross-Gender Perspective and Cross-Gender Relationship Expectations. Two dimensions of friendship were only discussed in the context of cross-gender friendships including (1) the opportunity that cross-gender friendships provide to see the perspective of the other gender and (2) relationship expectations that extend beyond friendship. With regard to the unique perspective-taking opportunity, findings revealed no effects of either Grade or Gender of participant on the variability of inclusion of this dimension. In contrast, the degree to which participants articulated issues around the additional "boy-girl" expectations placed on a cross-gender friendship varied as a function of Grade, with younger children placing less emphasis on these additional expectations as compared to older students ($F(3,166)=9.06$, $p<.001$). Indeed, subsequent post-hocs (Tukey B) revealed that grade 3 students ($M=0.39$, $SD = 1.45$) less frequently included references to cross-gender relationship issues as compared to grade 9 and grade 12 students ($M=2.39$, $SD=3.85$ and $M=3.93$, $SD=4.98$, respectively). In addition, grade 6 students ($M = 1.06$, $SD=3.12$)

were also observed to make fewer references to the relationship expectations which go beyond friendships when describing their beliefs about cross-gender friendships as compared to grade 12 students. The use of the dimension of cross-gender relationship expectations was not observed to vary as a function of the Gender of the participant.

Friendship Conceptions and Cross-Gender Siblings. Results of the Friendship type X Sibling composition Multivariate Analysis of Variance revealed no significant main effect of having cross-gender siblings and no significant interaction between Friendship and Sibling composition (F's < 1). That is, reports of same- and cross-gender friendship expectations did not vary as a function of the presence or absence of cross-gender siblings. Further, independent t-tests for the two dimensions available only for cross-gender friendship revealed that student reports of taking the cross-gender perspective and cross-gender relationship expectations did not differ as a function of whether cross-gender siblings were present or not (t's < 1.1)[2].

Direct Questions Regarding Cross-Gender Friendships: Beliefs and Experiences

Overview. Students were asked a series of direct questions about their beliefs regarding cross-gender friendships as well as their experience with cross-gender friends. Given that responses to this line of questioning were primarily categorical in nature (e.g., yes, no) a series of multi-way frequency analyses was conducted to explore the associations between Grade and Gender of Participant and responses to each of the belief and experience items. Like a chi-square analysis the multi-way frequency analysis tests associations between categorical variables (e.g., comparing observed and expected frequencies) (Tabachnick & Fidell, 1989). Yet, whereas a conventional chi-square statistic tests associations between two variables, a multi-way frequency analysis is designed to examine associations between more than two

categorical variables at a time. Specifically, in the present study a 3-way frequency analysis was utilized to consider the associations between (a) Grade, (b) Gender and (c) categorical responses to specific questions. In the present series of 3-way analyses Grade and Gender were conceptualized as independent variables, with responses to specific questions thought of as the dependent variables. As in an Analysis of Variance strategy with three factors, the 3-way frequency analyses conducted here tested the significance of a three-way association (i.e., Grade X Gender X categorical responses), followed by the set of three two-way associations (i.e., Grade X Gender, Grade X categorical responses, Gender X categorical responses), ending with the test of expected and observed frequencies for levels of each individual factor (i.e., Grade, Gender, categorical responses). Of sole interest here was variability of categorical responses as a function of Grade and Gender. Thus, only associations involving responses to a belief or experience item are reported (i.e., Grade X Gender X categorical response, Grade X categorical response, Gender X categorical response, one-way association for categorical response). In an effort to maintain the clarity of presentation only associations observed to be significant are reported here. Further, in cases where the frequency analysis yielded a significant result for the set of two-way associations (suggesting at least one of the two-way associations was significant), this omnibus statistic is not reported. Rather, results are reported at the level of individual two-way associations that reach significance.

To explore the effects of the presence or absence of cross-gender siblings a series of 2-way chi-squares was conducted for cross-gender friendship experience items. For each of the analyses in this section, findings are discussed using standardized residuals to examine the departure from independence within each cell.

Positive standardized residuals indicate that more cases were observed than would be expected on the basis of marginal frequencies whereas negative standardized residuals suggest that fewer cases were observed than would be expected. Using a Bonferroni procedure standardized residuals were adjusted according to the number of cells in the table to maintain a suitable Type 1 error rate (Hays, 1994).

Differences or Similarities between Same- and Cross-Gender Friendships. At the beginning of the direct line of questioning students were asked whether there were any differences between same- and cross-gender friendships. An initial exploration of the responses yielded the preliminary categories of "similar", "different" and "both similar and different". Although the majority of students (63.8%) advocated that same- and cross-gender friendships were in fact different (partial $\chi^2(2, \underline{N}=174)=73.00$, $\underline{p}<.001$), the frequency of responses to this difference question were significantly associated with both Grade (partial $\chi^2(6, \underline{N}=174)=23.33$, $\underline{p}<.001$) and Gender of participant (partial $\chi^2(2, \underline{N}=174)=6.43$, $\underline{p}<.05$). As illustrated in Table 6 an investigation of the two-way contingency table involving responses to the difference question at each grade level reveals that the belief that same- and cross-gender friendships are different was perhaps less true of grade 3 students, many of whom reported that their same- and cross-gender friendships were similar. In contrast, making a distinction between same- and cross-gender friendships was perhaps strongest for the oldest students given that fewer grade 12 students than would be expected stated that their same- and cross-gender friendships were similar. Table 7 displays the distribution of responses for girls and boys. No individual cell was observed to have a significant standardized residual. Nevertheless, an inspection of the distribution of frequencies indicates that although

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Table 6

Observed Frequencies of Similarities and Differences as a function of Grade of Participant

	Grade 3	Grade 6	Grade 9	Grade 12	Total
Similar	n = 21 (48.8%) SR = 3.4	n = 9 (20.0%) SR = -.5	n = 8 (17.8%) SR = -.8	n = 3 (7.3%) SR = -2.1	n = 41 (23.6%)
Different	n = 20 (46.5%) SR = -1.4	n = 31 (68.9%) SR = .4	n = 30 (66.7%) SR = .2	n = 30 (73.2%) SR = .8	n = 111 (63.8%)
Both Similar and Different	n = 2 (4.7%) SR = -1.5	n = 5 (11.1%) SR = -.3	n= 7 (15.5%) SR = .5	n = 8 (19.5%) SR = 1.2	n = 22 (12.6%)
Total	n = 43 (100%)	n = 45 (100%)	n = 45 (100%)	n = 41 (100%)	N = 174

Note. SR = Standardized Residual; Critical value (p<.05) for standardized residuals is 2.86

Table 7

Observed Frequencies of Similarities and Differences as a function of Gender of Participant

	Girls	Boys	Total
Similar	n = 14 (15.6%) SR = -1.6	n = 27 (32.1%) SR = 1.6	n = 41 (23.6%)
Different	n = 64 (71.1%) SR = .9	n = 47 (60.0%) SR = -.9	n = 111 (63.8%)
Both Similar and Different	n = 12 (13.3%) SR = .2	n = 10 (11.9%) SR = -.2	n = 22 (12.6%)
Total	n = 90 (100%)	n = 84 (100%)	N = 174

Note. SR = Standardized Residual; Critical value (p<.05) for standardized residuals is 2.64

the majority of boys and girls stated that their friendships were different, slightly fewer girls and slightly more boys than might be expected reported that their same- and cross-gender friendships were similar.

Subsequent analyses explored the nature of differences and similarities described by students in an effort to further understand students' beliefs about cross-gender friendship. Table 8 illustrates the frequency of responses across a wide range of friendship dimensions or categories that students included. Looking first at the similarities, it appears that the majority of responses involving similarities in same- and cross-gender friendships rested on issues of common activities (e.g., "you do the same things with both of them"), loyalty and commitment (e.g., "in both friendships they can be trusted") and intimacy (e.g., "you can share personal things with them"). An examination of responses involving differences reveals a somewhat parallel profile. That is, the majority of "difference" responses focused on issues of common activities (e.g., "we do different things together"), intimacy (e.g., "I don't share personal things with my friends that are boys, I don't tell them as much") and loyalty and commitment (e.g., "you can trust them better"). The remaining similarity and difference responses were spread out across other categories, creating lower frequencies which were more difficult to interpret.

The Possibility of a True Cross-Gender Friendship. Students were asked whether it was possible to have a friend of the other gender without that relationship being a romantic one. An inspection of responses to this question suggested that every student in the sample with the exception of two third graders advocated that "true friendship" was possible with someone of the other gender. When asked whether it was possible to have a cross-gender "best friend", 81% of participants responded

Table 8

Distribution of Similarity and Difference Responses Across Dimensions of Friendship

Dimension of Friendship	Similarities		Differences	
	# of Responses	% of Total	# of Responses	% of Total
Common Activities	34	39.5	75	39.1
Similar Attitudes/Interests	9	10.5	8	4.2
Character Admiration	1	1.2	6	3.1
Global Evaluation	2	2.3	4	2.1
Stimulation Value	2	2.3	4	2.1
Helping	2	2.3	1	0.5
Sharing	1	1.2	0	-.-
Social Gestures	2	2.3	0	-.-
Absence of Negative Behavior	0	-.-	6	3.1
Liking and Friendship	4	4.7	0	-.-
Companionship and Compatibility	2	2.3	5	2.6
Acceptance	1	1.2	3	1.6
Loyalty and Commitment	12	14.0	16	8.3
Genuineness	4	4.7	3	1.6
Intimacy	10	11.6	55	28.6
CG Perspective-Taking	--	-.-	2	1.0
CG Relationship Expectations	--	-.-	4	2.1
Total	86	100.0	192	100.0

Note. CG = Cross-Gender

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affirmatively. Given the overwhelmingly positive responses to these questions for all participants, associations to Grade and Gender of participant were not explored.

Experience with Cross-Gender Friendship. When asked about their own experience with cross-gender friendships, 93% of participants reported having experienced such a friendship. It is important to note that of the 12 children (five girls, seven boys) who reported never having had a cross-gender friendship, nine were in grade 3 and three were in grade 6. As can be seen in Table 9, for those students who reported cross-gender friendship experiences, 90% stated that these friendships were current rather than having taken place in the past (partial $\chi^2(1,\underline{N}=162)=120.13$, $\underline{p}<.001$), although the timing of the friendship was observed to be associated with Grade (partial $\chi^2(3, \underline{N}=162)=13.79$, $\underline{p}<.01$). Although no standardized residuals were significant, more grade 3 girls and boys than might be expected were observed to report that their experience with cross-gender friendships was in the past. The opposite was true for grade 9 students in that all participants reported current or ongoing friendships. An examination of the length of these cross-gender friendships suggests that across boys and girls in different grades, students on average, had been involved in these friendships for approximately three years ($\underline{M}$ = 3.04, $\underline{SD}$ = 2.52). The length of the friendships was not observed to vary significantly as a function of either Grade or Gender of the participant.

Although some students reported having only one cross-gender friendship, the majority of students (70%) reported having more than one cross-gender friend (partial $\chi^2(1,\underline{N}=162)$ =27.69, $\underline{p}<.001$). As depicted in Table 10, a significant association was observed between the number of cross-gender friends and Grade of Participant (partial $\chi^2(3,\underline{N}=162)=39.67$, $\underline{p}<.001$). Indeed, whereas girls and boys in grades 6, 9 and 12

Table 9

Observed Frequencies for Timing of Cross-Gender Friendships as a Function of Grade of Participant

	Grade 3	Grade 6	Grade 9	Grade 12	Total
Current	n = 27 (79.4%) SR = -.7	n = 36 (85.7%) SR = -.3	n = 45 (100%) SR = .7	n = 38 (92.7%) SR = .2	n = 146 (90.1%)
Prior	n = 7 (20.6%) SR = 2.0	n = 6 (14.3%) SR = .9	n = 0 (0%) SR = -2.1	n = 3 (7.3%) SR = -.5	n = 16 (9.9%)
Total	n = 34 (100%)	n = 42 (100%)	n = 45 (100%)	n = 41 (100%)	N = 162

Note. SR = Standardized Residual; Critical value (p<.05) for standardized residuals is 2.73

Table 10

Observed Frequencies for Number of Cross-Gender Friendships as a Function of Grade of Participant

	Grade 3	Grade 6	Grade 9	Grade 12	Total
One Friend	n = 24 (70.6%) SR = 4.4	n = 10 (23.8%) SR = -.7	n = 3 (6.7%) SR = -2.8	n = 11 (26.8%) SR = .2	n = 48 (29.6%)
More than one Friend	n = 10 (29.4%) SR = -2.8	n = 32 (76.2%) SR = .4	n = 42 (93.3%) SR = 1.8	n = 30 (73.2%) SR = .2	n = 114 (70.4%)
Total	n = 34 (100%)	n = 42 (100%)	n = 45 (100%)	n = 41 (100%)	N = 162

Note. SR = Standardized Residual; Critical value (p<.05) for standardized residuals is 2.73

primarily reported more than one cross-gender friendship, the majority of students in grade 3 described only a single cross-gender friendship. Further, when describing the location of their cross-gender friendships, more students than might be expected on the basis of marginal frequencies (partial $\chi^2(2,\underline{N}=162)=11.76$, $\underline{p}<.01$) reported that they considered these individuals to be both in and out of school friends (46%). The remaining students were split almost evenly between cross-gender friendships that were either strictly school friends or strictly home friends (out of school). The location of the friendship was observed to be associated with Grade of the participant (partial $\chi^2(6,\underline{N}=162)=36.70$, $\underline{p}<.001$). An inspection of the distribution of frequencies (see Table 11) suggests that emphasis on cross-gender friendships both at home and at school was less for grade 3 and 6 boys and girls who more commonly reported cross-gender friendships that were rooted strictly in the school context.

The largest proportion of participants reported that their cross-gender friendships were the same age as themselves (54%; partial $\chi^2(5,\underline{N}=160)=146.37$, $\underline{p}<.001$). However, a three-way association was also observed between the age of cross-gender friends, Grade and Gender of the participant (Likelihood Ratio $\chi^2(15,\underline{N}=160)=25.84$, $\underline{p}<.04$). The two-way contingency tables for age by grade (separately for boys and girls) are displayed in Table 12. The two-way association between age of cross-gender friends and grade was significant for both girls (Likelihood Ratio $\chi^2(15,\underline{N}=84)=37.08$, $\underline{p}<.001$) and boys (Likelihood Ratio $\chi^2(15,\underline{N}=76)=30.81$, $\underline{p}<.01$). To begin, although the majority of boys reported having same-aged friendships, younger cross-gender friends were slightly more frequent for grade 3 boys (as compared to older boys) whereas the combination of cross-gender friends who are younger, older and same-age was more common for older boys in

Table 11

Observed Frequencies for Location of Cross-Gender Friendships as a Function of Grade of Participant

	Grade 3	Grade 6	Grade 9	Grade 12	Total
Home or Out of School	n = 11 (32.4%) SR =.7	n = 8 (19.0%) SR = -.9	n = 9 (20.0%) SR = -2.8	n = 14 (34.1%) SR = 1.0	n = 42 (25.9%)
School	n = 16 (47.1%) SR = 2.1	n = 20 (47.6%) SR = 2.4	n = 5 (11.1%) SR = -2.1	n = 4 (9.8%) SR = -2.2	n = 45 (27.8%)
Both Home and School	n = 7 (20.5%) SR = -2.2	n = 14 (33.3%) SR = -1.2	n = 31 (68.9%) SR = 2.2	n = 23 (56.1%) SR = .9	n = 75 (46.3%)
Total	n = 34 (100%)	n = 42 (100%)	n = 45 (100%)	n = 41 (100%)	N = 162

Note. SR = Standardized Residual; Critical value (p<.05) for standardized residuals is 2.86

Table 12

Observed Frequencies for Age of Cross-Gender Friends as a Function of Grade of Participant for Girls and Boys

Girls

	Grade 3	Grade 6	Grade 9	Grade 12	Total
Younger	n = 1 (6.7%) SR = .3	n = 2 (8.7%) SR = .9	n = 1 (4.0%) SR = -.2	n = 0 (0%) SR = -1.0	n = 4 (4.8%)
Older	n = 2 (13.3%) SR = .0	n = 0 (0%) SR = -1.7	n = 3 (12.0%) SR = -.2	n = 6 (28.6%) SR = 2.0	n = 11 (13.1%)
Same	n = 11 (73.3%) SR = 1.1	n = 16 (69.6%) SR = 1.1	n = 12 (48.0%) SR = -.3	n = 5 (23.8%) SR = -1.8	n = 44 (52.4%)
Older and Same	n = 0 (0%) SR = -1.9	n = 3 (13.0%) SR = -1.1	n = 8 (32.0%) SR = .8	n = 9 (42.9%) SR = 1.8	n = 20 (23.8)
Younger and Same	n = 1 (6.7%) SR = 1.1	n = 0 (0%) SR = -.7	n = 1 (4.0%) SR = .5	n = 0 (0%) SR = -.7	n = 2 (2.4%)
Younger, Older and Same	n = 0 (0%) SR = -.7	n = 2 (8.7%) SR = 1.3	n = 0 (0%) SR = -.9	n = 1 (4.8%) SR = .3	n = 3 (3.6%)
Total	n = 15 (100%)	n = 23 (100%)	n = 25 (100%)	n = 21 (100%)	N = 84

Boys

	Grade 3	Grade 6	Grade 9	Grade 12	Total
Younger	n = 4 (22.2%) SR = 1.8	n = 1 (5.6%) SR = -.5	n = 1 (5.0%) SR = -.6	n = 1 (5.0%) SR = -.6	n = 7 (9.2%)
Older	n = 4 (22.2%) SR = 1.3	n = 2 (11.1%) SR = -.1	n = 0 (0%) SR = -1.5	n = 3 (15.0%) SR = .4	n = 9 (11.8%)
Same	n = 8 (44.4%) SR = -.7	n = 13 (72.2%) SR = .9	n = 13 (65.0%) SR = .5	n = 9 (45.0%) SR = -.7	n = 43 (56.6%)
Older and Same	n = 1 (5.6%) SR = -.9	n = 0 (0%) SR = -1.5	n = 5 (25.0%) SR = 1.5	n = 4 (20.0%) SR = 1.8	n = 10 (13.2%)
Younger and Same	n = 1 (5.6%) SR = .3	n = 2 (11.1%) SR = 1.5	n = 0 (0%) SR = -.9	n = 0 (0%) SR = -.9	n = 3 (3.9%)
Younger, Older and Same	n = 0 0 (0%) SR = -1.0	n = 0 0 (0%) SR = -1.0	n = 1 1 (5.0%) SR = -.1	n = 3 (15.0%) SR = 1.9	n = 4 (5.3%)
Total	n = 18 (100%)	n = 18 (100%)	n = 20 (100%)	n = 20 (100%)	N = 76

Note. SR = Standardized Residual; Critical Value (p<.05) for standardized residuals on each table is 3.04

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grade 12 (as compared to younger). Similarly, the majority of girls also reported same-aged cross-gender friends, although girls in grade 12 reported the fewest cases of same-aged friends as compared to girls in the other grades.

In summary, the vast majority of participants reported experience with cross-gender friendships, many of which had gone on for several years and were considered to be ongoing or current friendships. A majority of students reported having more than one cross-gender friendship which took place with mostly same-aged peers in contexts both in and out of school. Variability in cross-gender friendship experience was primarily evident as a function of grade level rather than differences existing between the cross-gender friendship experiences of girls and boys.

<u>Cross-gender Friendship Experience and the Presence of Cross-Gender Siblings</u>. Results of each of the two-way chi-square analyses revealed that experiences with cross-gender friends did not vary as a function of the presence or absence of cross-gender siblings. Specifically, the timing, location, number, and age of cross-gender friendships were not associated with the presence or absence of cross-gender siblings (all p's > .20). Further, a t-test revealed that the average length of cross-gender friendships was not different for students with and without cross-gender siblings (t < 1.1)[3].

<u>Friendship Selection: The Information Board Tasks</u>

<u>Overview.</u> To explore whether the process of selecting a hypothetical friend might vary as a function of the grade and gender of the participant, and the gender of the friend being selected (i.e., same- or cross-gender), a series of analyses was conducted on measures of pre-decisional searching on each of the information boards. Several categorical measures including (1) initial responses to the question of "what

would you first want to know before you could decide who you would choose as a friend", (2) the first dimension accessed during the search of the same-gender information board and (3) the first dimension accessed during the search of the cross-gender information board were analyzed using 3-way frequency analyses to explore potential associations with grade and gender of the participant. As described earlier, only effects involving pre-decision search measures are reported (i.e., Grade X Gender X categorical response, Grade X categorical response, Gender X categorical response, one-way association for predecision search measures). Non-significant and omnibus findings are not reported here, only individual associations that reached significance. Where applicable, findings are discussed using standardized residuals to examine the departure from independence within each cell where positive standardized residuals indicate that more cases were observed than would be expected on the basis of marginal frequencies, and negative standardized residuals suggest that fewer cases were observed than would be expected. Using a Bonferroni procedure standardized residuals were adjusted according to the number of cells in the table to maintain a suitable Type 1 error rate (Hays, 1994).

Additional pre-decision search information including (4) total amount of information searched on each board (5) the proportion of information searched within each dimension on the board, (6) the use of various search moves, as well as (7) the post-decision consideration of degree of similarity between the hypothetical friend selected and the participant were analyzed in a series of 4 (Grade level: 3, 6, 9, 12) X 2 (Gender of participant: girl, boy) X 2 (Gender of friend being selected: Same-Gender, Cross-Gender) Repeated Measures Analysis of Variance with Grade and Gender of participant as between-subject factors and Gender of friend being selected as a within-

subject factor. Where appropriate, post-hoc tests (Tukey B and Dependent t-tests) were conducted to explore simple effects.

Finally, to explore whether the presence or absence of cross-gender siblings influenced the search of information a series of two-way chi-squares were conducted for the categorical search variables (1 to 3 described above). In addition, a series of 2 (Gender of friend being selected: Same-Gender, Cross-Gender) X 2 (Sibling composition: presence of a cross-gender sibling, absence of cross-gender siblings) Repeated Measures Analyses of Variance were conducted for each of search variables 4 through 7 (described above).

"The first thing you would want to know". Prior to commencing search on either experimental information board, participants were asked about the "first thing they would want to know" in an effort to explore whether the dimension "male or female" would be highly salient. Responses were coded across the range of available dimensions, although subsequent inspection of the frequencies revealed that the dimension of "favorite thing to do at home" and "how much they care about school" were rarely selected as initial considerations and these two dimensions were therefore dropped from subsequent consideration. Results of the 3-way frequency analysis suggested that the most common dimension mentioned (46%) was "what they care about most in a friendship" (partial $\chi^2(4, \underline{N}=168)=73.14$, $\underline{p}<.001$). Interestingly, only 10% of participants first wanted to know about the gender of the friend being selected. The frequency of responses, however, was observed to vary as a function of both Grade (partial $\chi^2(12, \underline{N}=168)=55.09$, $\underline{p}<.001$) and Gender of the participant (partial $\chi^2(4, \underline{N}=168)=10.70$, $\underline{p}<.05$). Tables 13 and 14 illustrate the two-way associations for Grade and Gender of participant.

Table 13

Observed Frequencies for Information Participants Would Most Want to Know About Before
Making a Selection as a Function of Grade of Participant

	Grade 3	Grade 6	Grade 9	Grade 12	Total
Male or Female	n = 11 (26.2%) SR =3.3	n = 0 (0%) SR = -2.1	n = 5 (10.9%) SR = .2	n = 1 (2.6%) SR = -1.5	n = 17 (10.1%)
Age	n = 10 (23.8%) SR =1.3	n = 10 (23.8%) SR = 1.3	n = 5 (10.9%) SR = -.9	n = 2 (5.3%) SR = -1.7	n = 27 (16.1%)
Favorite thing to do after school	n = 1 (2.4%) SR = -1.1	n = 0 (0%) SR = -1.7	n = 7 (15.2%) SR =2.3	n = 3 (7.9%) SR = .3	n = 11 (6.5%)
What they like most in a person	n = 3 (7.1%) SR = -2.0	n = 6 (14.3%) SR = -1.0	n = 10 (21.7%) SR = .0	n = 17 (44.7%) SR = 3.1	n = 36 (21.4%)
What they care about most in a friendship	n = 17 (40.5%) SR = -.5	n = 26 (61.9%) SR = 1.5	n = 19 (41.3%) SR = -.5	n = 15 (39.5%) SR = -.6	n = 77 (45.8%)
Total	n = 42 (100%)	n = 42 (100%)	n = 46 (100%)	n = 38 (100%)	N = 168

Note. SR = Standardized Residual; Critical Value (p<.05) for standardized residuals is 3.04

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Table 14

Observed Frequencies for Information Participants Would Most Want to Know About Before
Making a Selection as a Function of Gender of the Participant

	Girls	Boys	Total
Male or Female	n = 11 (12.4%) SR =.7	n = 6 (7.6%) SR = -.7	n = 17 (10.1%)
Age	n = 9 (10.1%) SR =-1.4	n = 18 (22.8%) SR = 1.5	n = 27 (16.1%)
Favorite thing to do after school	n = 4 (4.5%) SR = -.8	n = 7 (8.9%) SR = .8	n = 11 (6.5%)
What they like most in a person	n = 17 (19.1%) SR = -.5	n = 19 (24.1%) SR = .5	n = 36 (21.4%)
What they care about most in a friendship	n = 48 (53.9%) SR = 1.1	n = 29 (36.7%) SR = -1.2	n = 77 (45.8%)
Total	n = 89 (100%)	n = 79 (100%)	N = 168

Note. SR = Standardized Residual; Critical Value (p<.05) for standardized residuals is 2.81

The distribution of frequencies shown on Table 13 reveals that the "first thing you would want to know" was somewhat different across grade levels. To begin, although the largest percentage of grade 3 students advocated that they would need to know about what an individual "cares about most in a friendship", the next most common choice was to first want to know concrete information about the gender of the friend. Indeed, more grade 3 students than would be expected chose information about gender as reflected by a significant standardized residual for that cell. The majority of grade 6 students chose "cares about in a friendship", followed by wanting information about age. Although the first choice for a large group of grade 9 students was also "cares about most in a friendship", the distribution of other choices appears to be more evenly spread out across dimensions, with the second largest group of grade 9 students wanting information about what the friend "most likes in a person". Finally, for grade 12 students the two largest groups of students were split between wanting to know about "care about most in a friendship" and "most like in a person". Indeed, more grade 12 students than might be expected on the basis of marginal frequencies reported first wanting information about "most like in a person". Taken together, although a large number of students at each grade level were interested in information about friendship quality, some younger students in grades 3 and 6 showed interest in wanting to know about concrete features like gender and age, whereas some older students in grade 9 and 12 showed interest in the deeper psychological feature of personal qualities.

With regard to the association between "first want to know" and Gender of participant, Table 14 illustrates that although the largest groups of boys and girls

reported wanting to know first about what the individual "cared about most in a friendship", the distribution of frequencies was slightly different for boys and girls. Specifically, although none of the standardized residuals are statistically significant it appears that a slightly larger percentage of girls than boys wanted knowledge about friendship quality. In contrast, twice as many boys as girls sought information about the age of individuals as their first pre-decision requirement.

First dimensions accessed on the information boards. On both the same- and cross-gender boards, the first dimension actually accessed in the pre-decision search was recorded. On both boards the dimension of "favorite thing to do at home" was rarely accessed first and, hence, this dimension was dropped from any further consideration. Results of a 3-way frequency analysis for the first dimension accessed on the same-gender board indicated that just over one third of participants went first to the dimension of "what they care about most in a friendship" and just under one third of participants accessed the dimension of "age" first in their search (see Table 15), although the frequency of access across dimensions was observed to be associated with the Gender of the Participant (partial $\chi^2(4,\underline{N}=171)=12.85$, $\underline{p}<.01$). As can be seen in Table 15, although no individual standardized residual reached significance, proportionately more girls than boys accessed "what they care about most in a friendship" first in their pre-decisional search on the same-gender board. In contrast, the distribution of frequencies indicates that more boys than girls went to the dimension of "how much they care about school" at the start of their search for a same-gender friend.

For the cross-gender information board, the results of a 3-way analysis yielded only a significant one-way effect for the first dimension accessed (partial

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Table 15

Observed Frequencies for First Dimension Searched on the Same-Gender Information Board as a Function of Gender of Participant

	Girls	Boys	Total
Age	n = 24 (26.4%) SR = -.6	n = 27 (33.8%) SR = .6	n = 51 (29.8%)
Favorite thing to do after school	n = 7 (7.7%) SR = -.8	n = 11 (13.7%) SR = .9	n = 18 (10.5%)
How much they care about school	n = 3 (3.3%) SR = -1.6	n = 11 (13.7%) SR = 1.7	n = 14 (8.2%)
What they most like in a person	n = 18 (19.8%) SR = .8	n = 10 (12.5%) SR = -.9	n = 28 (16.4%)
What they care about most in a friendship	n = 39 (42.8%) SR = 1.3	n = 21 (26.3%) SR = -1.3	n = 60 (35.1%)
Total	n = 91 (100%)	n = 80 (100%)	N = 171

Note. SR = Standardized Residual; Critical value (p<.05) for standardized residuals is 2.81

χ^2(4,$\underline{N}$=168)=68.03, $\underline{p}$<.001). In particular, the frequency of participants moving first to "what they care about most in a friendship" (n=59, 35%, std. residual = 4.38) and "age" (n=59, 35%, std. residual = 4.38) was more than what would be expected by marginal distribution. In addition the frequency of participants first accessing "how much they care about school" (n=10, 6%, std. residual = -4.07) and "favorite thing to do after school" (n=17, 10%, std. residual = -2.86) on the cross-gender information board was less than what would be expected by the marginal distribution. The remaining dimension of "what they most like in a person" was endorsed by 23 participants (14%).

Although the first dimensions accessed on the same- and cross-gender information boards could not be directly compared in the frequency analyses, the distributions of frequencies across dimensions appear to be relatively similar. Indeed, at the start of both the same- and cross-gender searches the majority of students accessed either concrete information about age or deeper information about friendship quality.

Total amount of information searched. Findings from a Grade X Gender of participant X Gender of friend, Repeated Measures Analysis of Variance indicated that the amount of information searched did not vary as a function of either grade, gender of the participant, or the gender of the friend being selected. On average, across both the same- and cross-gender information boards participants searched a total of 23 pieces of information (range = 4 to 36) before selecting the alternative they would most like to have as a friend.

Information searched within each dimension. In a Grade X Gender of participant X Gender of friend Repeated Measures Analysis of Variance, the percentage of information searched within each dimension on the same- and cross-gender boards

was observed to vary as a function of Grade, Gender of participant and Gender of the friend being selected (no interactions between these variables were observed). To begin, main effects were observed for Grade in four of the six dimensions. Specifically, as can be seen on Table 16 across both boards, the amount of search spent on the dimension of "age" decreased as students got older ($F(3,168)=9.23$, $p<.001$). In contrast, with increasing age, participants were observed to search more information in the dimensions of "favorite thing to do after school" ($F(3,168)=2.86$, $p<.05$), "what they most like in a person" ($F(3,168)=3.11$, $p<.05$) and "what they care about most in a friendship" ($F(3,168)=3.53$, $p<.05$).

The percentage of information searched within each dimension was also observed to vary as a function of Gender of participant for the dimensions of "favorite thing to do after school", "favorite thing to do at home" and "what they most like in a person". That is, boys were observed to search more information in the "after school" ($F(1,168)=3.92$, $p<.05$; $M=17.25$, $SD = 4.70$) and "at home" ($F(1,168)=8.69$, $p<.004$; $M = 15.94$, $SD = 5.38$) dimensions in comparison to the amount of information searched by girls in these same dimensions of "after school" ($M=15.41$, $SD= 5.98$) and "at home" ($M= 13.38$, $SD = 5.53$). Conversely, girls searched more within the "in a person" dimension ($F(1,168)=6.09$, $p<.02$; $M= 18.91$, $SD= 6.84$) as compared to boys ($M= 16.67$, $SD = 4.99$)[4].

Finally, the percentage of search in two of the dimensions was observed to vary as a function of the Gender of the friend being selected. Pre-decisional searches for same-gender friends involved a greater percentage of search in the dimensions of "how much they care about school" ($F(1,168)=5.57$, $p<.02$; $M=15.18$, $SD = 6.27$) and "what they care about most in a friendship" ($F(1,168)=5.37$, $p<.02$; $M= 19.43$, $SD = 10.60$) as

Table 16

Means and Standard Deviations for Percentage of Search in each Dimension and Nature of
Search Moves as a Function of Grade of Participant

Dimension		Grade 3 (n=44)	Grade 6 (n=45)	Grade 9 (n=46)	Grade 12 (n=41)	Post-Hoc Results
Age ***	M	20.75	20.05	16.37	13.35	Gr. 3, 6 > Gr. 9, 12
	(SD)	(8.46)	(6.53)	(7.10)	(8.15)	
Favorite thing to do after school *	M	15.19	15.25	17.14	17.70	Gr. 3 < Gr. 12
	(SD)	(4.09)	(5.24)	(5.80)	(6.32)	
Favorite thing to do at home	M	15.87	14.22	14.19	14.19	
	(SD)	(4.01)	(6.10)	(5.22)	(6.76)	
How much they care about school	M	16.21	14.22	13.89	14.55	
	(SD)	(3.94)	(5.43)	(6.70)	(7.51)	
What they most like in a person *	M	16.39	16.83	18.53	19.70	Gr. 3 < Gr. 12
	(SD)	(4.45)	(6.42)	(7.20)	(5.54)	
What they most care about in a friendship *	M	15.54	19.51	19.77	20.63	Gr. 3 < Gr. 12
	(SD)	(3.94)	(8.42)	(8.52)	(9.88)	
Search Moves						
Interdimensional Moves *	M	43.71	40.75	34.81	27.80	Gr. 3 > Gr. 12
	(SD)	(27.28)	(23.41)	(29.64)	(27.17)	
Intradimensional Moves ***	M	21.39	31.92	44.41	54.00	Gr. 3 < Gr. 9, 12 Gr. 6 < Gr. 12
	(SD)	(19.65)	(24.96)	(30.65)	(29.57)	
Shifts ***	M	34.83	27.18	20.78	19.19	Gr. 3 > Gr. 9, 12
	(SD)	(20.71)	(16.77)	(10.20)	(9.22)	

Note. Interdimensional Moves = Searching within one alternative across different dimensions;
Intradimensional Moves = Searching across different alternatives within one dimension; Shifts =
Searching neither within the same alternative nor within the same dimension

*** p< .001 * p<.05

compared to searches for cross-gender friends (M= 14.22, SD=7.03; M = 18.26, SD = 8.14; respectively).

In sum, the emphasis placed on different dimensions appeared to vary with age in that younger students placed greater emphasis on the concrete dimension of "age" whereas older students seemed to be shifting focus to more internal or psychological features as reflected by qualities in people and in friendships. Boys appeared to be more focused on obtaining information about interests in activities, with girls spending a greater percentage of search finding out information about personal qualities. The selection of a same-gender friend seemed to necessitate greater consideration of the dimensions reflecting attitudes toward school and qualities in a friendship as compared to what was involved in the search for a cross-gender friend.

The use of search moves. Results of a Grade X Gender of participant X Gender of friend Repeated Measures Analysis of Variance revealed that the use of each of the three search moves of interest varied only as a function of Grade. Inspection of the percentage of each type of move displayed in Table 16 reveals that the use of intradimensional moves (searching within the same dimension across different alternatives) increased with age (F(3,168)= 12.38, p<.001). In contrast, searching interdimensionally (within the same alternative across different alternatives) was utilized less by older students (F(3,168)=2.78, p<.05). Similarly, shifting around the board moving neither within the same dimension nor within the same alternative seemed to dissipate with increasing age (F(3,168)=8.22, p<.001). Thus, with increasing age students were observed to become more systematic in their search, making greater use of a search strategy designed to examine the same dimension or aspect of information across a range of alternative choices.

<u>Degree of similarity</u>. In general, a high degree of similarity was observed between the profiles of the participant and the chosen alternative friend, across both the same ($\underline{M}$ = .78, $\underline{SD}$ = .29) and cross-gender information boards ($\underline{M}$ = .74, $\underline{SD}$ = .28). Results of a Grade X Gender of participant X Gender of friend Repeated Measures Analysis of Variance revealed a significant 3-way interaction for degree of similarity between Grade, Gender of participant and Gender of the friend being selected ($\underline{F}$(3,168)=2.90, $\underline{p}$<.04). Subsequent tests of simple interactions revealed that the 2-way interaction between Grade and the Gender of the friend being selected was significant for boys ($\underline{F}$(3,81)=4.84, $\underline{p}$<.005) but not girls ($\underline{F}$<1). Each of the 2-way interactions are illustrated in Figure 6. Post-hoc dependent t-tests indicated that the difference between the degree of similarity on the same- and cross-gender boards was significant for grade 9 boys ($\underline{t}$(19)=-4.58, $\underline{p}$<.001) but not for boys at other grade levels (all $\underline{t}$'s <1.25). An inspection of the graph for boys in Figure 6 suggests that grade 9 boys chose same-gender friends that were almost entirely similar to themselves as compared to the cross-gender friendship choices they made which were still largely similar to themselves.

<u>Information Search, Similarity and Cross-Gender Siblings.</u> Results from each of the two-way chi-squares revealed no significant associations between categorical search variables and the presence or absence of cross-gender siblings (all p's > .30). Specifically, there was no association between having a cross-gender sibling and the responses provided for "first thing you would want to know" before choosing a friend. Nor were there any associations between the first dimensions accessed on the same- and cross-gender information boards and having a cross-gender sibling. Similarly, none of the Gender of friend being selected X Sibling composition Repeated Measures

Figure 6

Variability in the Similarity of Chosen Friend as a function of Grade and Gender of the Participant and the Gender of the Friend.
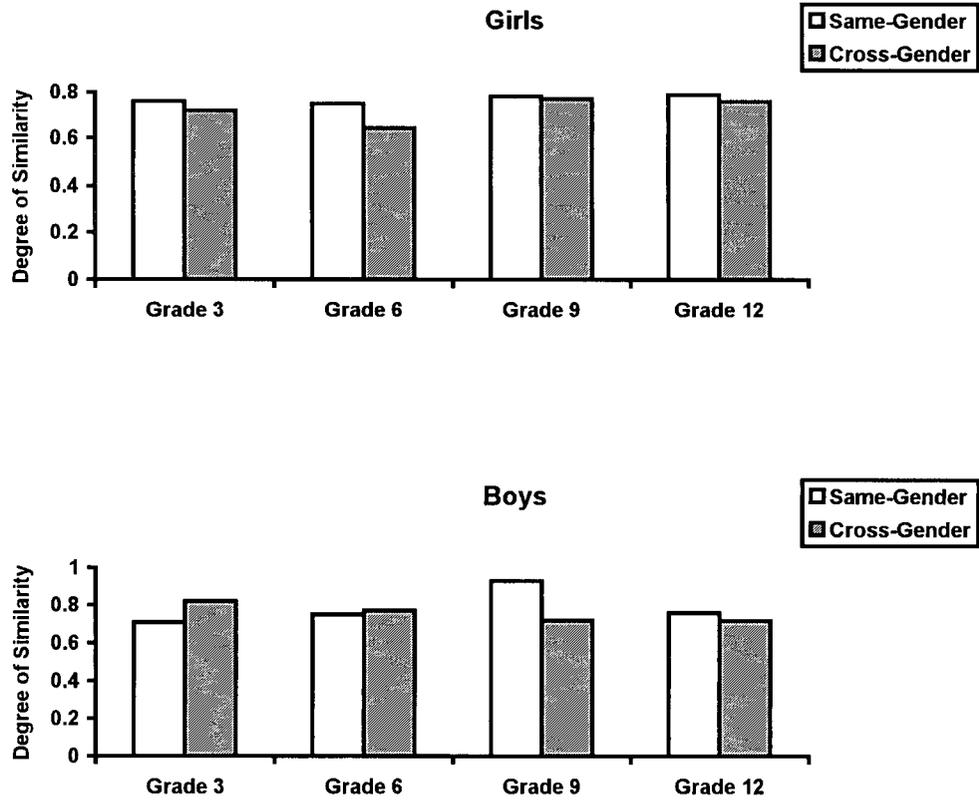
Analyses of Variance for key search variables revealed significant main effects or interactions involving sibling composition (all F's < 2). Thus, on both the same- and cross-gender information boards the total amount of information searched, the proportion of information searched within each dimension, and the use of different search moves did not vary for students as a function of the presence or absence of cross-gender siblings. In addition, the similarity observed between the profile of the participant and the chosen alternative friends (both same- and cross-gender) was not different for students with and without a cross-gender sibling[5].

Discussion

The purpose of the present investigation was to explore the nature, and experience, of cross-gender friendships in a sample of students ranging in age from middle childhood to middle adolescence. As a starting point, students were asked to describe their beliefs and expectations for cross-gender friendships and these reports were compared to conceptions of friendship held for same-gender peers. Further, using a hypothetical decision-making task, the process of friendship selection was examined in an effort to gain insight into the criteria that children and adolescents use in choosing a friend of the other gender. Finally, in an effort to focus attention on friendships that have been virtually ignored in the peer relationships literature, the present study provided a unique opportunity to document several features of experience with cross-gender friends.

Friendship Conceptions

It is noteworthy that the emphasis placed on two dimensions of friendship was stable regardless of whether boys and girls were talking about same- or cross-gender friendships. Indeed, across each of the age groups included in the present study,

friends were viewed as people to have fun with (e.g., "she makes me laugh") and people who make necessary social gestures that keep the friendship going (e.g., "calling me up"). In contrast, reports of the remaining dimensions of friendship were observed to vary as a function of the type of friendship being discussed (i.e., same- or cross-gender) as well as the gender and grade of the participant. In an effort to describe the potential differences between same- and cross-gender friendships several possible patterns were explored including (1) a developmental lag, (2) the idea that the friendships of "boys" are distinct from the friendships of "girls", and (3) the notion of different "types" of friendships.

A pattern of developmental lag. There is very little evidence in the present data to suggest that cross-gender friendships developmentally lag, or trail behind, conceptions of friendship held for same-gender friends. Indeed, across all fifteen dimensions of friendship, only one interaction between grade and friendship type was observed to reach statistical significance. In particular, younger students were observed to place relatively equal emphasis on the expectation that same- and cross-gender friends would have similar attitudes and interests. In contrast, beginning in early adolescence, students began to distinguish their same- and cross-gender friendships, more commonly reporting the expectation of similarity in attitudes and interests when discussing same-gender friendships. Despite a significant interaction here, the pattern of findings does not provide evidence that cross-gender friendships lag behind at an earlier age, eventually converging with same-gender friendships sometime later in adolescence. In fact, the pattern observed for expectations of similarities in attitudes and interests shows a divergence that begins in early adolescence and is maintained into the oldest age group studied. It may be that the

youngest group of students in this sample were developmentally not ready to spontaneously generate similarity as an important feature of friendship (e.g., Epstein, 1983) and were thus less likely to make distinctions across types of friendships on this dimension.

A second interaction was observed between grade level and friendship type for reports of common activities. Although the interaction was only marginal, younger students in grades 3 and 6 tended to place greater emphasis on the need for common activities within their same-gender friendships as compared to cross-gender friendships. In contrast, no such distinction was made by older students in grades 9 and 12. Consistent with the idea of a developmental lag, there is evidence here that the importance of "friends doing things together" converges for same- and cross-gender friendships at some point in adolescence. Yet, one must remember that the dimension of common activities is believed, by some, to be an earlier, more developmentally immature notion of friendship (e.g., Bigelow & LaGaipa, 1980). As such it was predicted that during early adolescence when cross-gender friendships are purportedly "new", the emphasis on common activities would be stronger for cross-gender friendships. These predictions were not confirmed by the present pattern of findings. Indeed, expectations for common activities in cross-gender friendship did not exceed what was expected in same-gender friendships for any age group and remained stable across the age groups studied.

A third grade level by friendship type interaction observed for the dimension of loyalty and commitment provides the only clear evidence of a classic developmental lag for cross-gender friendship conceptions. Although this interaction did not reach statistical significance, students in grades 3, 6 and 9 showed a tendency to differentiate

between same- and cross-gender friendships, placing greater emphasis on the expectation that same-gender friends must be trustworthy and loyal companions. The oldest students in this sample, however, made no such distinction. The convergence of emphasis placed on loyalty and commitment in middle adolescence for both same- and cross-gender friendships is consistent with what has been observed in studies of friendship quality (e.g., Sterling et al., 1995). Given the fact that expectations for loyalty and commitment are considered to be advanced concepts along the developmental sequence (e.g., Bigelow & LaGaipa, 1980), it makes sense that if cross-gender friendships at younger ages are in fact "newer" and children have less experience with these friendships, then it may take longer to develop the belief in trust and faithfulness that is characteristic of same-gender friendships. Given the marginal status of this interaction, one must be cautious, however, in interpreting this finding as strong evidence of a developmental lag.

Taken together, there is very limited evidence to suggest that beliefs about cross-gender friendships developmentally trail behind what is expected in a same-gender friendship. Yet, despite the absence of evidence for a clear developmental lag, there is an abundance of evidence supporting previous contentions that friendship beliefs and expectations are different for different age groups. Collapsing across reports for same- and cross-gender friendships, a series of differences were observed as a function of the grade level of the participant. Consistent with previous research (e.g., Berndt, 1981), the emphasis placed on the defining features of friendship (e.g., "friends are nice", "friends like each other") as well as on certain behaviors in friendship (e.g., "friends help", "friends don't hit each other") was observed to decrease with increasing age. Further, replicating earlier findings (e.g., Bigelow & LaGaipa, 1980),

the older students in this sample (as compared to younger students) were observed to place greater emphasis on dispositional characteristics of the friend including character admiration and similarity (e.g., "you admire the character of your friends", "friends share similar attitudes and interests") and deeper features of the friendship including companionship, acceptance, loyalty and commitment, genuineness and intimacy (e.g., "friends know each other", "friends accept each other", "friendships involve being open and honest", "you trust friends because they stick by you", "friends share personal information"). Thus, beliefs and expectations for both same- and cross-gender friendships were observed to follow a common developmental sequence which has been well documented in the existing literature with emphasis shifting from concrete features early on, to the more abstract features of friendship discussed by older students (e.g., Berndt, 1981, Bigelow & LaGaipa, 1980; Selman, 1980; Youniss & Volpe, 1978). Although it is clear that the focus of attention or emphasis placed on certain dimensions shifts with increasing age, the current findings suggested that differences in friendship conception are cumulative. That is, an inspection of the present data suggests that even when attention is focused on dimensions of intimacy or loyalty and commitment, students continue to include references to what have been described as developmentally earlier expectations of friendship such as social behavior (e.g., the absence of negative behavior in friendship).

Perhaps not surprisingly, the two features of friendship observed to be relatively stable across age were expectations surrounding common activities and ego reinforcement. As LaGaipa (1981) has pointed out, it is quite likely that the expectation and experience of mutual activities are essential at all ages and are rewarding to friends, thereby strengthening the friendship bond. Similarly, Bigelow (1977) has

identified ego reinforcement as an affective component of friendship, suggesting that the need to have a friend reinforce our sense of self (and not degrade our ego) is a hallmark of friendship across ages.

The friendships of "girls" and "boys". In addition to the examination of differences as a function of age, the present investigation was also concerned with exploring the possibility that boys and girls simply have different ideas about what "girl" friendships and "boy" friendships are all about (Bukowski & Kramer, 1986) and as a consequence hold different expectations for their same- and cross-gender friendships. This pattern of differences received some support in the present investigation based on a series of interactions observed between friendship type and the gender of the participant.

As compared to discussions of cross-gender friendship, boys more commonly reported that their same-gender friendships were about doing things together (i.e., common activities) and making sure that negative behavior directed at a friend (e.g., fighting, hitting) was kept in check. Girls showed a reverse pattern of emphasis for these same dimensions more frequently mentioning expectations of common activities and the absence of negative behavior in their cross-gender friendships. Following the argument that doing things together is a bigger part of "boy" friendships (e.g., Youniss & Smollar, 1985), it seems that the reports of girls and boys reflect this understanding. Further, previous researchers have suggested that boys play styles may be more aggressive and more commonly involve "rough and tumble" types of interactions (e.g., Maccoby & Jacklin, 1987; Thorne, 1993). In keeping with this gender difference in style, girls and boys in the present investigation endorsed the belief that the absence of negative behavior may be particularly critical in friendships with boys.

Several additional interactions between friendship type and gender of the participant suggest that the "boy" and "girl" friendship distinctions may be more common for girls. In particular, when discussing same-gender friendships, girls more frequently reported the importance of intimacy and tended to place greater emphasis on the need for loyalty and commitment (marginal interaction) as compared to their beliefs about cross-gender friendship. In contrast, no reliable differences were observed when beliefs regarding these same dimensions were compared across the same- and cross-gender friendship conceptions of boys. The distinctions being made by girls support the contention that individuals recognize that intimacy is more a feature of "girls" friendships than it is a feature of "boys" friendships (Bukowski & Kramer, 1986). Despite the fact that boys may recognize intimacy as a "female" friendship feature, their beliefs about cross-gender friendships did not involve higher expectations for intimate disclosure or interpersonal support. Finally, in the present study, girls tended to place greater emphasis on the importance of ego reinforcement in cross-gender, as compared to same-gender friendships. Boys made no such distinction. An inspection of responses reveals that many of these girls were in fact talking about the belief that boys who are truly their friends would not put them down or make them feel bad about themselves. Although this effect for ego reinforcement was only marginal, the present findings suggest that the importance placed on the absence of ego degradation may reflect negative experiences that girls have had with male peers rather than being suggestive of some underlying difference between the friendships of "girls" versus the friendships of "boys".

Taken together, there is some evidence here to support Bukowski and Kramer's (1986) contention that some features are simply more a part of the friendships of "girls"

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and some are more integral to the friendships of "boys". Interestingly, the present findings also suggest that girls are making more distinctions about what is expected within their friendships with other girls versus their friendships with boys. The fact that girls made more distinctions between their expectations for same- and cross-gender friendship is consistent with similar observations made in the study of friendship quality (e.g., Sterling et al., 1995). In addition to supporting the Bukowski and Kramer argument, however, the present findings delineated a series of gender differences across friendship expectations that are consistent with previous research. Specifically, across both same- and cross-gender friendships, boys were observed to place greater emphasis on common activities and companionship which is consistent with previous evidence suggesting that boys place high value on affiliation in their friendships (e.g., Youniss & Smollar, 1985). As an addition to existing descriptions, however, the present data also suggested a trend for boys to more commonly place emphasis on the expectation that friends will share similar attitudes and interests and will not be overly aggressive as compared to girls' reports of their expectations. In keeping with previous research (e.g., Berndt, 1981; Bigelow & LaGaipa, 1980; Smollar & Youniss, 1982), girls were observed to more commonly stress the importance of intimacy as well as loyalty and commitment in their friendships as compared to the expectations articulated by boys. Along these same lines, girls placed greater emphasis on the need for friends to be open, honest and accepting. Thus, the pattern of gender differences observed in this study suggests that boys generally place greater emphasis on maintaining affiliation and companionship in friendship whereas girls place greater importance on several deeper features including interpersonal support and commitment to the friendship.

<u>Different types of personal relationships</u>. As a final pattern of potential

differences, the present investigation sought to explore the possibility that same- and

cross-gender friendships represent different types of personal relationships (Furman,

1993). Several dimensions of friendship were observed to vary as a function of

whether children and adolescents in this sample were describing expectations for

same- or cross-gender friends. To begin, students more commonly expected that

same-gender friends would be similar in their attitudes and interests, demonstrate

trustworthiness and commitment to the friendship and provide a source of intimacy and

interpersonal support as compared to their cross-gender friends. In contrast, as

compared to same-gender friendships, the expectation that friends would not "put you

down" or "hurt your feelings" tended to be more commonly voiced as an expectation of

cross-gender friendship. As described above, however, these differences between

same- and cross-gender friendships varied depending on the age and gender of the

person providing the descriptions. For several other dimensions of friendship, boys

and girls at all ages made several consistent distinctions between same- and cross-

gender friendships. Namely, the expectation that two people share an affective bond

by "liking each other" and consider themselves friends appeared to receive greater

attention in discussions of same- rather than cross-gender friendships. Interestingly,

although liking seemed to be more important in same-gender friendships, global

evaluations (e.g., "he's nice") and emphasis on the value of good character (e.g., "he's

smart") played a stronger role in beliefs about cross-gender friendships. In spite of the

fact that boys and girls have numerous opportunities to interact with each other

(Thorne, 1986, 1993), the greater emphasis placed on global evaluations of "niceness"

and good character suggests perhaps a lack of in-depth experience, bringing about an

increased focus on the minimal expectation that cross-gender friends must be "good people".

Contrary to what was observed by Zarbatany et al. (1992), the present data support the contention that children and adolescents have differing expectations for their same- and cross-gender friendships across a range of dimensions. Discrepancies between the present study and the work of Zarbatany and her colleagues may simply reflect different levels of specificity in context. That is, Zarbatany et al. asked early adolescents to describe what they wanted from friends across a range of very specific contexts (e.g., talking on the phone, playing sports) which arguably involve specific individual needs. In contrast, the present investigation was designed to obtain a more general picture of what is expected from same- and cross-gender friends regardless of the context, and likely reflects expectations that fulfill more general interpersonal needs. Yet, it would be inaccurate to suggest that students in the present study made distinctions between friendships across every dimension examined. In discussing both same- and cross-gender friendship beliefs, boys and girls at each grade level talked about the importance of good companionship (e.g., "we get along really well") and the need for friends to be honest and accepting of each other.

As an additional test of the possibility that cross-gender friendships are fundamentally different from friendships with same-gender peers, students were directly asked whether they considered these relationships to be different. Approximately two-thirds of students in this sample endorsed the belief that their same- and cross-gender friendships are distinct. In grade 3, however, the number of students advocating differences paralleled the number of students who reported that their same- and cross-gender friendships were the same. This association with grade level is somewhat

fascinating given that middle childhood has been designated as the peak of gender segregation (e.g., Belle, 1989). Following the logic of gender segregation, one might expect that friendships with members of the other gender would be virtually unimaginable at this age and certainly not similar in nature. It is also possible, however, that the group of grade 3 students endorsing similarity have fairly early notions of friendship (e.g., global evaluations of "niceness", common activities) which they find equally applicable to same- and cross-gender friends. Almost 25% of the students in the present sample reported the belief that same- and cross-gender friendships are similar, with twice as many boys as girls in this group. Thus, consistent with earlier descriptions of boys making fewer distinctions in their expectations for same- and cross-gender friendships (as compared to girls), boys were more likely to advocate similarity across friendship type when asked for an explicit comparison. When students were asked to articulate what it was about their same- and cross-gender friendships that made them similar or different, very parallel responses were observed. The three most common reasons for same- and cross-gender friendships being different included (1) doing different things together, (2) not sharing as much personal information with cross-gender friends and (3) not being able to trust or rely on cross-gender friends to the same extent as same-gender friends. An examination of the top three reasons given for similarities between same- and cross-gender friendships revealed the exact same dimensions being implicated. In particular, same- and cross-gender friendships were viewed as similar because (1) you can do the same kinds of things together, (2) you trust and depend on them all the same and (3) you can share personal information with them. Thus, the source of difference for some students was the source of similarity for others.

In general, the best answer to the question of whether same- and cross-gender friendships represent different types of personal relationships seems to be both yes and no, hinging to some degree on individual difference. The present findings suggest that differences were observed on some features of friendship but not others. Moreover, despite little evidence in the present study to suggest a developmental lag for conceptions of cross-gender friendship, there is moderate support for the idea that boys and girls distinguish between what they expect from same- and cross-gender friendships on the basis of features that are considered to be characteristic of the friendships of "boys" and "girls". The fact that the pattern of making distinctions was more common among girls again suggests that individual differences may be involved in beliefs about cross-gender friendship. Thus, the identification of differences and/or similarities in same- and cross-gender friendships seems to rest on who you are talking to (with boys more likely than girls to advocate similarity), as well as what dimension of friendship you are asking about. It is important to point out that that one source of individual difference, namely the presence or absence of cross-gender siblings, was not observed to influence expectations for cross-gender friendships. That is, there is no evidence in this study to suggest that students with cross-gender siblings hold different expectations for cross-gender friendship than are held by individuals without these siblings.

Notwithstanding, one source of individual variability may rest in the nature of early experiences with cross-gender peers. Children with long-standing and high quality experience with cross-gender peers may be more likely to view friendship from a gender-neutral perspective. In contrast, children with highly negative cross-gender peer experiences may be guarded in forming expectations for friendship or may have a

hard time figuring out what should be expected in cross-gender friendship. In future, researchers need to track positive and negative experiences with cross-gender peers longitudinally from an early age to examine how these early peer experiences contribute to the development of friendship. In addition, although the present data carefully outline same- and cross-gender friendship conceptions, it is important to question whether these beliefs and expectations map onto real life friendships. Having charted some of the expectations for cross-gender friendship it becomes important to examine whether these expectations are successfully fulfilled by existing friendships. For example, although Clark and Bittle (1992) observed moderate correlations between expectations in friendship and the characteristics of actual friendships it is unclear from their study whether students were focusing primarily on same-gender friendships or more generally on same- and cross-gender friendships. Further, it will be important to explore whether the developmental maturity evidenced by what children and adolescents report doing in friendship, actually maps onto how they conduct themselves in cross-gender friendships (Selman & Schultz, 1990). Although we are unlikely to find a one-to-one correspondence between social cognition and social behavior (Damon, 1977), further research is needed to examine how beliefs about cross-gender friendships play out in existing friendships. Finally, although verbal reports are imperative for the purpose of initially describing the ways in which children and adolescents organize their social relationships with cross-gender peers, the present findings need to be confirmed using alternative methods. Future research might include the use of story recognition tasks and questionnaires (e.g., Furman & Bierman, 1984), along with observations of existing cross-gender friendship pairs to obtain useful information.

The Selection of Cross-Gender Friends

Although some beliefs and expectations for friendship were observed to deviate as a function of the type of friendship being discussed, observations of friendship selection were considerably more stable across the choice of same- and cross-gender friends. Indeed, very little variability in the search and selection of hypothetical friends was attributable to the gender of the friend being chosen. Contrary to what was predicted, only 10% of the students in this study named "gender" as the first thing they would need to know before choosing a friend. Gender was simply not the salient selection criterion that would have been expected given the overwhelming body of literature documenting same-gender peer preference (e.g., Hayden-Thomson et al., 1987) and gender homophily in friendship (e.g., Clark & Ayers, 1992).

When predecisional search on the information board tasks was examined, findings revealed only a handful of distinctions being made in the search for a same- or cross-gender friend. Specifically, when looking for a cross-gender friend, students spent less time finding out each alternative's position on "caring about school" and "valued qualities in a friendship" as compared to the time spent on these dimensions when the choice was of the same gender. Thus, students appeared to place more importance on uncovering some of the deeper or internal features for a same-gender friend as opposed to what was required in selecting a cross-gender friend. It may be that students are slightly more selective about who they are willing to have as a same-gender friend. The magnitude of these differences, however, is fairly small and as such should be interpreted with caution. In fact, although slightly greater selectivity was evidenced as a function of searching particular dimensions, there was no evidence here that students exerted more effort looking for a same- versus a cross-gender friend

(as measured by the total number of pieces of information uncovered). Further, no differences were observed for other indices of predecisional search across same- and cross-gender friendship selections. Finally, it is important to note that the search and selection of cross-gender friends appeared to be unrelated to whether students had experience with a cross-gender sibling.

In contrast to the earlier finding that early and middle adolescent students placed greater emphasis on similarity in attitudes and interests when discussing same-gender friendships, the present findings suggest that boys and girls in all age groups chose friends who were highly similar to themselves regardless of the gender of the target. Despite differing expectations of similarity in spontaneous verbal reports, when presented with options, students sought friends who were similar to themselves. It was not the case that "opposites attract" in the selection of cross-gender peers. Nor was it the case as Aboud and Mendelson (1996) would predict that similarity was less important for older children and adolescents. One exception to this stable pattern of concordance was observed for grade 9 boys for whom the similarity between themselves and their chosen same-gender friend was, on average, close to a perfect match. Thus, although grade 9 boys sought a high degree of similarity in selecting cross-gender peers they seemed to differentiate on the basis of the gender of the friend, choosing even more similar same-gender friends. Because this distinction was only made by grade 9 boys it would be premature to generate any firm conclusions about what goes on in friendship selection of adolescent boys until this single finding is replicated.

Given that beliefs and expectations for friendship were observed to vary as a function of friendship type it was somewhat surprising that the search and selection of

same- and cross-gender friends did not. Perhaps one reason for the commonality in searching involves the organization of information on the board. Specifically, participants saw one board that contained all male alternatives and one with all females and, hence, were never confronted with the task of having to choose between a male and a female friend. It would be interesting in future research with this methodology to place both male and female alternatives on the same board. Using varying levels of similarity across choices, it would be possible to explore what choices are made when, for example, cross-gender alternatives are more similar to the self. It is also conceivable that the searches and choices of same- and cross-gender friends were similar because of the hypothetical nature of the task. That is, students in the present investigation knew that they did not actually have to follow through in a friendship with their chosen friend. They understood the hypothetical nature of the task and may have searched and chosen differently if they believed a real friendship was to ensue. Similarly, paradigms that involve the creation of "stranger" profiles in which a variety of information regarding similarities and differences is provided have been criticized for being too artificial (Aboud & Mendelson, 1996; Sunnafrank, 1992). In particular, Sunnafrank has contended that in real life friendship formation, individuals are not usually provided with a set of information regarding the attitudes of prospective friends but rather have to seek this information out on their own. It is possible that in real life friendship selection, the process of seeking out personally relevant information is different for same- and cross-gender preaquaintances. Certainly, depending on the extent of contact and interaction it may be more or less difficult to seek out necessary information in selecting cross-gender friends. As Epstein (1983) and Thorne (1993) have pointed out regarding academic contexts, some school and classroom

configurations are simply more conducive to cross-gender contact then others. In spite of criticisms around the methodology, information board findings from the present investigation render support for existing developmental models of friendship selection (e.g., Epstein, 1986, 1989), and hence, provide evidence of the validity of the task.

Developmental differences in the selection of friends. When asked what they would first want to know before choosing a friend, approximately half of the students in this sample responded with a desire to find out about "what this person cared most about in a friendship". Consistent with Aboud and Mendelson's (1996) idea that older children are interested in personal attributes, a large number of students in this sample were interested in finding out what level or feature of friendship quality would be provided by potential friends. In contrast to Aboud and Mendelson's thinking, however, the desire to find out about potential friendship quality was not restricted to older children and adolescence but also characterized the wishes of half of the youngest group. Interestingly, the second largest group of grade 3 and 6 students reported wanting to know first about gender and age (respectively) which supports Epstein's (1986, 1989) notion that younger students may be more focused on concrete or surface features in friendship selection. In contrast, groups of grade 9 and 12 students opted for wanting to know about the internal, psychological feature of personal quality (e.g., "what they most like in a person"). When it came to actually searching information on the same- and cross-gender boards, a large number the participants were split between going first to the concrete dimension of age or going first to the internal dimension of friendship quality reflecting a division between emphasizing concrete versus abstract or internal features.

A consideration of the amount of search time spent within given dimensions provides further support for the existing developmental model. First, on both same- and cross-gender information boards, younger students spent more of their predecision searches in the concrete dimension of age. Second, older students as compared to younger, were observed to place more emphasis on time spent searching the two internal or psychological dimensions of personal and friendship quality. Indeed, in selecting a same- or cross-gender friend, older students seemed to focus more attention on finding out what each alternative valued in a person and in a friendship. The shift away from concrete features toward more abstract dimensions in choosing friends supports developmental trends proposed in previous research on both friendship selection (e.g., Epstein, 1986, 1989) and person perception (Livesley & Bromley, 1973). Contrary to what was expected, however, with increasing age students spent more time searching the concrete dimension of after school activity preference when selecting same- and cross-gender friends. Thus, despite the initial conceptualization of activity preference as a concrete or observable feature, it may very well be that older students viewed these after school activity preferences as a marker for some internal or underlying personal quality. Indeed, anecdotal reports from participants support this interpretation suggesting that in adolescence, extracurricular activities after school reflect a deeper personal orientation.

When patterns of search movement were explored for same- and cross-gender boards, several interesting developmental differences were noted. In keeping with previous research using the information board methodology with children and early adolescents (e.g. Davidson, 1991b, 1996), older students searched for same- and cross-gender friends more systematically, engaging in fewer shifts around the board,

making fewer moves that involved jumping to search information in a new dimension and a new alternative. Older students in this sample made greater use of an intradimensional search pattern (e.g., considering information about possible friends within the same dimension) and less use of an interdimensional search pattern (e.g., examining a series of information across dimensions for the same potential friend) as compared to younger students. It may be that the nature of the decision influenced the use of different search patterns. That is, in the search for a potential friend certain dimensions may become highly salient making it easier for students to focus on comparing possible friends within these important dimensions. Despite the developmental shift away from picking one potential friend and examining multiple pieces of information about that person, students in grades 3 and 6 were still using a large proportion of interdimensional searching to uncover information. Given that these younger age groups more closely approximate the ages studied by Davidson (1991b, 1996) the present findings replicate earlier observations of an emphasis on the interdimensional pattern of search in later childhood and early adolescence.

Interestingly, the primary use of an intradimensional search pattern by older students in this sample provides some support for the argument of Rodgers et al. (1984) that friendship selection in adolescence proceeds on the basis of an "elimination by aspects" rule. Friends that do not meet a subjective threshold in an area that is considered very important are dropped and not pursued any further. Although the simplicity of this interpretation has some appeal, it must be made clear that many students in the present study were in fact using a combination of strategies to search for same- and cross-gender friends.

<u>Gender differences in the selection of friends.</u> There is little evidence in the existing literature on interpersonal attraction and friendship selection to indicate that girls and boys choose friends for different reasons. Nevertheless, several reliable gender differences were observed in the present investigation. In the search for same- and cross-gender friends boys spent more time examining information about activity preferences (e.g., "favorite thing to do after school", "favorite thing to do at home") whereas girls focused greater attention on the abstract dimension of personal quality (e.g., "what they like most in a person). Drawing from the larger friendship literature, these findings are not overly surprising. If boys focus greater attention on common activities and affiliation in friendship (e.g., Youniss & Smollar, 1985) then it stands to reason that boys might be more concerned with obtaining this kind of information before selecting a friend of any kind, regardless of the gender of the target. Moreover, the greater emphasis girls spent on finding out about the personal qualities of these potential friends is consistent with an expectation for intimacy and interpersonal support within their friendship (e.g., Berndt, 1981, Bigelow & LaGaipa, 1980). For girls, understanding what a preaquaintance values in person may be fundamental to facilitating a close bond.

Taken together, the present findings suggest that the process of friendship selection may be somewhat different at different age periods but varies only slightly for boys and girls. Using an information board methodology in which friendship selection was framed as a decision-making task, children were observed to focus more of their attention on uncovering concrete information about potential friends whereas adolescents more frequently sought out information about abstract or internal features. Boys and girls at all ages selected same- and cross-gender friends who were highly

similar to themselves. In addition, however, the present data also suggest that many boys and girls placed a high priority on trying to find out what the quality of friendship might be like with their potential choices. The results of the present investigation do not support the conclusion that boys and girls choose same- and cross-gender friends for different reasons. Indeed, there is more evidence here to suggest that children and adolescents in this study were utilizing very similar selection criteria regardless of the gender of the target friend. Given the hypothetical nature of the decision-making task, the present findings need to be compared to real life friendships. For example, the present data suggest varying degrees of importance placed on both concrete and internal dimensions that must be validated by examining the friendship choices that children and adolescents actually make. Indeed, following in the footsteps of Kandel (1978a, 1978b) it would be useful to track same- and cross-gender friendships longitudinally, beginning as early as the preaquaintance phase, to examine the types of information as well as the amount of information that is considered mandatory before a friendship is pursued. Although no strong evidence was found to support the idea that individuals are <u>less</u> selective when it comes to choosing a cross-gender friend, the present findings needs to be confirmed by examining real friendship choices.

<u>The Experience of Cross-Gender Friendship</u>

The primary purpose of the present research was to explore cross-gender friendships within the domains of friendship conceptions and the selection of friends. Yet, this investigation also provided a unique opportunity to separate romantic heterosexual relationships from platonic associations and catch a glimpse of cross-gender friendship experiences at different points in childhood and adolescence.

Contrary to the "dating opportunity" theory or the belief that pure cross-gender friendship presupposes infatuation (Kon, 1981) and is almost certainly complicated by lust and sexuality (Sullivan, 1953), the overwhelming majority of students in the present sample advocated that cross-gender friendship was entirely possible in the absence of love or infatuation. In fact, a large majority of students entertained the possibility that they might have a best friend of the other gender.

Similarly, unlike the wide spread gender segregation that has been observed to characterize much of the elementary school years (e.g., Maccoby, 1987, 1994) the majority of children and adolescents in the present investigation reported having at least one cross-gender friend. Not surprisingly, the small number of children who reported no experience with cross-gender friendship were from the youngest age groups. The relatively equal proportions of boys and girls reporting cross-gender friendships suggests that both boys and girls seem to be equally willing to traverse gender boundaries.

Most of the cross-gender friendships discussed by students in this study were current or ongoing friendships, although at least one group of grade 3 students described friendships that had taken place in the past. On one hand, a majority of grade 6, 9 and 12 students described experiences with more than one cross-gender friend which is consistent with previous descriptions of the formation of mixed-gender friendship networks beginning in early adolescence (e.g., Dunphy, 1963). On the other hand, the experience of grade 3 students was more commonly limited to a single friend.

Students reported that they had been friends with specific cross-gender peers for an average of three years and this reported length was stable across girls and boys at each grade level. Again, what is interesting here, from a gender segregation

perspective is that many of the grade 6 students in this study were describing cross-gender friendships which had survived during a period in which cross-gender friendships are believed to be "taboo" (e.g., Schofield, 1981).

A majority of students in grades 9 and 12 reported that they considered their cross-gender friends to be both home and school friends. Although the joint contexts of home and school also described the cross-gender experiences of some younger students, grade 3 and 6 students were slightly more likely to talk about their cross-gender friends as "school" friends. The large numbers of younger students reporting cross-gender "school" friends runs somewhat counter to the argument that cross-gender friendships are more likely to take place outside the classroom context, at home or in the neighborhood (e.g., Smith & Inder, 1990). It is not possible, however, in the present data to discern whether "school" friendships meant cross-gender friends inside the classroom or somewhere within the larger school context (e.g., playground). Consistent with the outside school notion, almost one third of third graders and one fifth of sixth graders reported that their cross-gender friendships took place at home. The fact that "home" and "both home and school" categories were regularly mentioned by students in all grades supports the recent call for researchers to begin considering friendship in a wider array of settings (e.g., Newcomb & Bagwell, 1996).

When students were asked about the ages of their cross-gender friendships, the most common response was, not surprisingly, "same age". This finding is consistent with previous documentation of similarity in age between friendship pairs (Hallinan & Tuma, 1978; Kandel, 1978a). Responses to the question of age were observed to vary somewhat for boys and girls at the oldest grade level studied (although the individual effects were only marginal). Specifically, in combination with same-age

friends, the cross-gender friendships of some grade 12 boys (as compared to boys at other grade levels) also involved girls who were older and younger. Grade 12 girls, were slightly less likely than younger girls to restrict their cross-gender friendships to same-aged individuals, commonly reporting a combination of male friends who were both the same-age and older. Thus, at least some of the cross-gender friendships of older students appear to involve peers of varying ages.

It must be noted that none of the features of cross-gender friendship experience were observed to be associated with whether or not students had cross-gender siblings. That is, neither the timing, the number, the duration, the location, nor the age of cross-gender friends was associated with the presence of a cross-gender sibling. Consistently, throughout the present investigation, the presence or absence of cross-gender siblings did not emerge as an important individual difference variable in understanding beliefs and experiences in cross-gender friendships. These findings stand in contrast to earlier research examining adult cross-gender friendships and sibling constellations (Toman, 1976; Burker et al. 1981). Although replication is required, the present data provide support for the contention that the constellation of siblings does not have a powerful influence on experiences with peers (e.g., Greenfield & Weatherly, 1986).

In general, the majority of students in the present investigation described fairly extensive experience with cross-gender friends that may be surprising to many readers. The question becomes: Why was the experience of cross-gender friendship so widespread in the present sample? Perhaps it is because when students were asked to describe experiences with cross-gender friends they were not given any restrictions on which friends they could talk about. That is, despite being told not to consider

"romantic interests", friendship experience was not limited to any one context (e.g., home or school) and children were not required to describe a "top" or "best" friend. Instead, they were free to discuss whoever they believed met their criteria for being a friend. Certainly, the unrestricted nature of these reports likely optimized the chances of children and adolescents being able to clearly articulate their cross-gender friendship experiences. In replicating and extending these findings, the next step must be to ascertain whether children and adolescents are talking about reciprocal cross-gender friendships, or simply describing unilateral associations. Several writers have argued that reciprocity is key feature of friendship (e.g., Hartup, 1993) and cross-gender friendships are likely no exception to this rule.

Challenges and benefits. In describing their experiences, students made clear that cross-gender friendship was not without obstacles. Consistent with what has been delineated in the adult literature, students in the present study identified two basic challenges to cross-gender friendship involving both the public and private domain (O'Meara, 1989). First, some of the younger students suggested that cross-gender friendships sometimes bring with them anxiety surrounding the perceptions of the "audience". Specifically, they voiced concern over the fact that other people in both school and home contexts make assumptions about cross-gender friendships, insinuating "love", and teasing individuals who are involved in cross-gender friendships. The legitimacy of these particular concerns has been well documented in observational studies of children (e.g., Schofield, 1981; Thorne, 1993). Second, although older students identified the problems of cross-gender friendship being under "public" scrutiny, they also mentioned additional concerns that take place in a more "private" domain. Namely, a number of grade 9 and 12 students mentioned the

difficulties that can arise in a cross-gender friendship when one person in the dyad wants to be "more than friends" and develops romantic interests. The addition of the "sexual attraction" complexity is reminiscent of Sullivan's (1953) writing and, yet, students were clear in pointing out that sexual attraction was not an inevitability in cross-gender friendship but rather something that sometimes has to be dealt with. Given mixed reports about the extent to which cross-gender friendships can start out as a sexual attraction or end in an attraction, it would be useful in future research to track cross-gender friendships over time in an effort to chart the history of these friendships. For example, our understanding of the complexities that a sexual attraction brings to a cross-gender friendship may be made more clear if we were able to identify what circumstances surround transitions between friendship and romantic relationships.

In addition to the challenges posed, the present data offer some insight into the benefits afforded by the experience of cross-gender friendship. Consistent with Dweck's (1981) thinking, almost half of the older students in grade 9 and 12 suggested that cross-gender friendships provided them with unique opportunities for perspective-taking. Indeed, their responses indicated that the experience of cross-gender friendship represented both a chance to learn about, or figure out, the "other gender". Moreover, older students recognized the benefit of what they considered a "different" perspective when dealing with interpersonal problems. It may be that adolescents with high quality cross-gender friendship experiences become better at perspective-taking across "male" or "female" perspective. Future research is required in the study of cross-gender friendships to determine whether there are other benefits of these experiences or alternatively, whether the absence of cross-gender friendship is detrimental. Accordingly, we must begin to consider how the experience of cross-

gender friendship may be tied to adjustment outcomes. As a beginning, Kovacs et al. (1996) have documented advantages associated with having cross-gender friends in one's social network including greater acceptance by both same- and cross-gender peers. If the experience of cross-gender friendship promotes higher levels of comfort and higher quality interactions with members of the other gender this will likely have implications for relationships that transpire later in life. Indeed, Furman and Wehner (1994) have contended that affiliation experiences (e.g., reciprocity, collaboration) in cross-gender friendships might be directly linked to these same components in romantic heterosexual relationships. It may be that expectations for heterosexual romantic relationships are at least in part derived from cross-gender friendship experiences (see also Leaper & Anderson, 1997). It is the task of future researchers to empirically validate this speculation by examining the history of cross-gender friendships over time.

Conclusions

The results of the present investigation move research on peer relationships one small step further by beginning to examine the "together" aspect of boy's and girl's interactions, rather than exclusively focusing on the "apart" (Thorne, 1993). Although the study of cross-gender friendship remains in its infancy, it represents a unique example of "... a potentially significant manifestation of permeable sex boundaries" (Cohen et al., 1980, p. 524). Indeed, almost all of the children and adolescents in the present study reported cross-gender friendship experience that likely necessitated crossing over gender lines. Perhaps the "two worlds" of boys and girls are not as disparate or segregated as we would have once believed. Alternatively, despite the fact that boys and girls may spend a notable amount of time in their own "world",

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participating primarily in gender-differentiated activities, cross-gender friendships represent times when children choose to be with cross-gender peers. Beginning in early adolescence, the study of cross-gender friendship sheds light on how the social domains of boys and girls begin to more fully merge together.

The results of the present investigation suggest that beliefs about cross-gender friendship reflect several of the fundamental components understood to be functions of friendship. The theme of increasing self-understanding and self-worth (Sullivan, 1953) through affection, intimacy and a reliable alliance (Furman & Robbins, 1985) characterized many of the ideas articulated regarding cross-gender friends. In addition, the cross-gender friendships described here involved accounts of mutual activities and companionship. Children and adolescents showed a desire for friends of the other gender who were similar to themselves with the implication being that similar cross-gender friends will validate and support beliefs and interests (e.g. Byrne, 1971; Savin-Williams & Berndt, 1990).

Although same-gender friendships provide a useful comparison point, cross-gender friendship must not remain in the shadow, and should be considered unique contexts for development. As we continue to chart the territory by exploring the links between cross-gender friendship and adjustment, researchers and educators can begin to examine how friendships with cross-gender peers can be facilitated in childhood and adolescence.

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Footnotes

[1] An examination of order effects (i.e., whether students were asked first about same- or cross-gender friendships) revealed a significant 3-way interaction between Friendship Type, Gender and Order ($F(1,158)=8.05$, $p<.01$) for Common Activities. Although the pattern of means for the Friendship Type X Gender interaction was the same regardless of the order of presentation, the 2-way interaction was only statistically significant when the friendship conception interview began with a discussion of cross-gender friendships ($F(1,86)=20.93$, $p<.001$).

[2] In a more stringent test of the effects of cross-gender siblings, participants were divided into three groups including: (1) participants with no cross-gender siblings, (2) participants with younger cross-gender siblings (< 5 years) who received moderate to high ratings of closeness (i.e., "sometimes close", "usually close", "always close"), and (3) participants with older cross-gender siblings (< 5 years) who received moderate to high ratings of closeness (i.e., "sometimes close", "usually close", "always close"). Results of a Friendship type X Sibling composition Multivariate Analysis of Variance revealed no significant main effect or interaction. That is, reports of same- and cross-gender friendship expectations did not vary as a function of the three cross-gender sibling groupings. Further, independent t-tests for the two dimensions available only for cross-gender friendship revealed that student reports of taking the cross-gender perspective and cross-gender relationship expectations did not differ as a function of membership in any of the three sibling groups.

[3] Cross-gender friendship experiences were also examined using a three-group cross-gender sibling distribution involving participants with no cross-gender siblings, participants with close younger cross-gender siblings and participants with close older

cross-gender siblings. Results of each of the two-way chi-square analyses revealed that experiences with cross-gender friends did not vary as a function of membership in any of these three cross-gender sibling groups. Further, a t-test revealed that the average length of cross-gender friendships was not different across the three sibling groups.

[4] An examination of order effects (i.e., whether students were asked first to pick a same- or cross-gender friend) revealed a significant 2-way interaction between Gender of the respondent and Order ($F(1,160)=5,23$, $p<.05$) for proportion of search in the dimension of "in a person". Although girls (as compared to boys) spent more time searching the domain of "what they like most in a person" in both presentation orders, the main effect of Gender of the respondent was only statistically significant when the friendship selection task began with a same-gender board ($t(74)=3.49$, $p<.001$).

[5] Information search and the similarity of choice were also examined using a three-group cross-gender sibling distribution involving participants with no cross-gender siblings, participants with close younger cross-gender siblings and participants with close older cross-gender siblings. Results from each of the two-way chi-squares revealed no significant associations between categorical search variables and membership in the three group configuration of cross-gender siblings. Similarly, none of the Gender of friend being selected X Sibling composition Repeated Measures Analyses of Variance for key search variables revealed significant main effects or interactions involving sibling configuration. Finally, the similarity observed between the profile of the participant and the chosen alternative friends (both same- and cross-gender) was not different for students with close younger cross-gender siblings, close older cross-gender siblings or no cross-gender siblings.

PARENT CONSENT FORM

Study Title: "Understanding Friendship in Childhood and Adolescence"

Researchers:

Patti McDougall, M.A.Sc.	Shelley Hymel, Ph.D.	Carl von Baeyer, Ph.D.
Ph.D. Candidate	Associate Professor	Professor
Department of Educational	Department of Educational	Department of Psychology
Psychology and Special Education	Psychology and Special Education	University of Saskatchewan
University of British Columbia	University of British Columbia	

I have read and understand the attached letter regarding the study entitled "Understanding Friendship in Childhood and Adolescence."

_____ Yes, my son/daughter has my permission to participate

_____ No, my son/daughter does **not** have my permission to participate

Parent's Signature _____

Son or Daughter's Name _____

Date _____

Please include your name and address below if you would like to receive a written report when the findings from this study are complete:

Please detach this sheet and have your son or daughter return it as soon as possible.

page 2 of 2

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Student Consent Form

This form gives you the information you need to decide whether or not you want to be in our research study called "Understanding Friendship in Childhood and Adolescence". You may choose not to be in this study now or at any time during the study. It is not a problem if you decide to stop at any time. If you do not want to be in the study, it does not affect your schoolwork at all.

In this study we want to find out about what you think about friendship and how you might pick a friend. If you decide to be in this study you will first have to fill out a questionnaire about you (how old you are; who is in your family; how many brothers and sisters you have; the things you like to do and what you like in a friend). This will take about 10 minutes of class time. In the second part of the study you will be able to talk to the researcher about what you expect from a friend and what is important to you when you choose a friend. This will take about 30-40 minutes of class time and will be tape recorded so we can write your answers down later.

REMEMBER, THIS IS NOT A TEST. There are no right or wrong answers - just what you think. We want you to answer all the questions. **Also remember** that your name will **not** be kept with your answers so no one but the researchers will know whose answers they are. All answers are completely confidential. No one at your school or in your community (not even your parents) will ever see your answers, so please answer honestly.

We will be happy to answer any questions you have. If you have any other questions, please call Patti McDougall at 374-2251or the Department of Psychology at 966-6700.

If you wish to be in the study, please sign your name on the line below to let us know that you have read this form and that your questions have been answered. You may keep a copy of this consent form for your records.

Thank you for your help.

_____

DATE

_____

NAME (please print)

_____

SIGNATURE

About You

1. Name: _____

2. Are you female or male? (Check one)   _____ female   _____ male

3. When were you born? _____
                              (Month - Day - Year)

4. How old are you today? _____ years

5. What grade are you in?   _____

6. How do you describe yourself in terms of ethnic or cultural heritage? (Check one)

   _____   White (Anglo, Caucasian, European descent, etc.)
   _____   Latin (Spanish, Mexican, South American, etc.)
   _____   Black (African, Haitian, Jamaican, etc.)
   _____   First Nation (Aboriginal, Native Indian, etc.)
   _____   Asian (Oriental, Chinese, Japanese, Korean, etc.)
   _____   Filipino
   _____   East Indian
   _____   Other (If you would describe your ethnic or cultural heritage in
   some way that is not listed above, please describe your heritage
   on the line below).

   _____

7. Which of these adults do you live with MOST OF THE TIME? (Check one)

   _____   Both my parents
   _____   My mother only
   _____   My father only
   _____   My mother and a stepfather
   _____   My father and a stepmother
   _____   Grandparents
   _____   Other adults (who?)

   _____

8. **Tell us about your brothers and sisters:**

First Initial?	How old?	Female or Male? (Circle one)	How often do you feel close to this sister or brother? (Circle one)				
_____	_____	Female Male	Always close	Usually close	Sometimes close	Hardly ever close	Never close
_____	_____	Female Male	Always close	Usually close	Sometimes close	Hardly ever close	Never close
_____	_____	Female Male	Always close	Usually close	Sometimes close	Hardly ever close	Never close
_____	_____	Female Male	Always close	Usually close	Sometimes close	Hardly ever close	Never close
_____	_____	Female Male	Always close	Usually close	Sometimes close	Hardly ever close	Never close

(Write on back of page if you run out of room)

Tell us about the things you like to do:

9. Which of the following two activities do you prefer to do at home? (check one)
   _____ Watch T.V.
   _____ Talk on the phone

10. In your free time which of these two activities do you most prefer? (check one)
   _____ Make things (cooking or building stuff)
   _____ Reading a book or magazine

11. Which of the following two activities do you like to do after school? (check one)
   _____ Play sports
   _____ Hang out with a friend

12. If you were going to do activities after school, which would you prefer? (check one)
   _____ Being a member of a club
   _____ Being a member of a sports team

13. How much do you care about doing well in schoolwork? (check one)
   _____ I care a lot about doing well in my schoolwork
   _____ I care a little about doing well in my schoolwork

14. What is important to you in a person? (check one)
   _____ I really like a person who I can trust to keep a secret
   _____ I really like a person who tells jokes and makes me laugh

15. If you had a hobby which would you prefer? (check one)
   _____ Collecting something (like stamps or rocks)
   _____ Making something (like crafts or models)

16. Which of these two things do you care about most in a friendship? (check one)
   _____ I really care about having someone who will do things with me
   _____ I really care about having someone who will listen to me

Appendix E
Friendship Conception Interview

1. Is it important to have friends that are girls/boys? Are these friendships important? Why or why not?

2. How can you tell when a girl/boy is your friend?

3. What makes a girl/boy a good friend?

4. What things do you think about when you are choosing a friend that is a girl/boy?

5. With a friend that is a girl/boy, what makes two friends really close

6. If you have a friend that is a girl/boy, what makes a good friendship last? What do you do to stay friends with your friends that are girls/boys?

7. In a friendship with a girl/boy, what would make the two of you stop being friends?

8. What do you like most in a friend that is a girl/boy?

9. What do you not like in a friend that is a girl/boy?

10. Is there anything else you would like to tell me about friendships with girls/boys?

General probes for all questions:
    (a) Explain what you mean by _____?
    (b) Tell me more about _____?

Appendix F
Coding Scheme for the Friendship Conception Interviews

<u>General Instructions</u>

Coding Units:

Because multiple responses were sought, each codable unit must be identified before coding may proceed. In any child's interview, several friendship dimensions (FD) may be embedded in a single sentence, each sentence may contain a FD, or a single FD may be elaborated upon in more than one sentence. As a general rule, units within the same sentence can be identified by transitions from one FD category to another. If the units in a single phrase or sentence represent examples of the same FD, they should be maintained as a unit, and should only be coded once.

Probing:

When a child gives an initial response and is probed for an elaboration of the response, only the elaboration should be coded. You may use an arrow to indicate that you are connecting an earlier statement with the elaboration which is coded.

Multiple Codes:

If the child reports the same behavior verbatim more than once for a particular question, code only the first report of the behavior. However, if different examples of the same category are reported (in different sentences), code each of these separately. For example, if the child says "he likes the same things I do, he likes my records/he likes the same things I do/he says I'm nice and he invited me to his house" then the first sentence should be coded once as "Similarities (4B)" because the same code is reflected in both parts of the sentence; the second sentence should not be coded because it is a verbatim repetition of a part of the previous sentence; and the third sentence should be coded as "Ego Reinforcement " (he says I'm nice) and "Specific Social Behavior - Social Gesture" (he invited me to his house) because two separate codes are embedded within it.

Units that are not codable:

Be certain to code as "NC" responses which cannot easily fit into once of the available categories in order to insure maximization of intercoder agreement. Examples of units which are not codable will include peripheral or off-topic discussion, things that are unrelated to the issue of friendship.

1. Proximinty

Responses in this category refer to the physical proximity of target and subject. The target and subject are together physically for some reason, not necessarily by choice. also included are references to frequent and continuing contact, without further elaboration.

- We are in the same class
- We take the same bus to school
- We live near each other
- I see her a lot
- We stay together

Distinguish this category from:

a) **Common Activities**: The focus in Common Activities is on choosing to perform an activity together, not the physical closeness which inevitably results when common activities are engaged in. For example:

Common Activities:	We play football together
	We go to church together
	We hang out together
Proximity:	We are on the same team
	We're in the same class

b) **Similarity** (especially demographic): The focus in Similarity (demographic) is on a specific commonality noted between subject and other, emphasizing similar socio-cultural experiences as a result of demographic similarities and focusing on personal variables such as age, sex, and religion. For example:

Similarity (demographic):	We are the same age
	We both live in the poor section of town
Proximity:	We are in the same class in school
	We live on the same street

2. Common Activities

The focus of this set of categories is on the activities that the target and subject engage in together, usually by choice. Common activities can include:

Play: References to activities which have a game-like or play quality (e.g., which are considered for enjoyment, fun, sport). The response may be at a general level or at a more specific level.

- we play together
- we play hockey together
- we play computer games
- she chases me
- he wants to play with you
- we joke around together

Conversation: Responses refer to the occurrence of conversation between target and subject. No mention is made of the quality of these interchanges. The topics discussed are general and do not include references to intimate or private thoughts.

- she is nice to talk to
- he talks to me
- I can talk to him
- we talk about school and homework
- we talk on the phone
- we talk a lot
- we tell jokes

Other activities can include:

- we walk to school together
- we work together
- we go shopping together
- we're always together
- we go to the movies together
- we hang out together
- I like doing things with her
- he gives me something to do
- we always do things together
- we go for coffee
- we hang out at the tire swing

Distinguish this category from:

a) **Proximity**: see previous page on the Proximity category

b) **Similarities** (interests 4B): The focus of similarities (interests etc.) is on the interest or enjoyment of a particular activity (e.g., we both like math), specifically the shared interests, attitudes and values of the subject and target rather than the simple fact that both parties engage in the activity. For example:

Similarities:	we both like modern dance
	we like the same things
	we both like playing hockey
Common Activities:	we play hockey together
	we go dancing together

c) **Stimulation Value**: The focus in Stimulation value is on the effect of the target's behavior on the subject rather than on the mutual enjoyment of activities engaged in together. For example:

Stimulation Value:	I really enjoy doing things with her
	It's exciting to play hockey with him
Common Activities:	We play hockey together
	We're always together

d) **Specific Social Behaviors - Social Gestures**: The focus in social gestures is on the initiation of friendship overtures-invitations, welcomings, etc. rather than the actual engagement in the activity. For example:

Social Gestures:	she invited me to her birthday party
	they asked me to go swimming with them
	he introduced himself to me
Common Activities:	we go swimming together
	she goes to parties with me

e) **Intimacy potential**: The focus in Intimacy potential is on the exchanging of personal information, mutually communicating private thoughts and feelings. For example:

          Intimacy potential: we can tell each other anything
                                      I can talk about my problems with her
                                      It's important to have someone to talk to, to confide in

          Common Activities: we talk to each other
                                        we discuss politics together

3. Prior Interaction

Responses in this category refer to a history of prior interaction between target and subject. The existing friendship or positive attitude is largely due to these past interactions. For example:

- we have known each other for a long time
- we used to keep in touch every other day
- we have spent a lot of time together over the years
- I've known her the longest
- I've known her since I was 3
- we've been in the same class for 3 years

4. Similarities (he/she is like me)

Responses in this category make explicit a commonality between the subject and target and refer specifically to a perceived similarity between subject and target. There different possible areas of similarities, some of which will be coded as separate subcategories.

    4A) Similarity - Demographics
    4B) Similarity - Interests, attitudes, behaviors, beliefs, interests, personality and lifestyles

    (4A) Demographics: Responses note the similarity between subject and target emphasizing similar socio-cultural experience as a result of demographic similarities and focusing on personal variables such as age, sex, physical characteristics and religion.

- she's the same age as me
- we're both boys
- she is Chinese like me
- we are both red-heads
- we're the same size, same body structure
- we get the same grades in school

    (4B) Interests, attitudes, behaviors, beliefs, interests, personality and lifestyles:
Responses refer to similarities between subject and target concerning their interests in, attitudes towards, and beliefs about the world around them, as well as their particular lifestyles within that world. Responses explicitly note the similarity between the subject and target along the dimensions of personality, habits, styles or relating, affective patterns, traits and personal strengths or weaknesses There must be an explicit mention of shared similarity.

- we are both interested in math
- we are both conservative politically
- we both like outdoor sports
- she likes the same things I do

- she smokes as much as I do
- we have a lot in common
- she's shy like me
- we're both sensitive
- we are both moody
- we have the same way of joking with people

Distinguish this category from:

a) **Stimulation Value**: The focus in Stimulation value is on the effect of the target's behavior on the subject. The subject "gets off" on some aspect of the target's behavior. For example:

Stimulation Value:	we enjoy being with each other
	she's exciting to be with because of our interests
	it's fun to be with her because we both like loud music
Similarities:	we both like the same pastimes
	we have a lot in common
	we both like loud music

b) **Common activities**: The focus in Common Activities is on the activities that the target and subject engage in together and does not reflect their mutual interest or enjoyment of a particular activity. For example:

Common activities:	we play hockey together
	we hang out together
	we do our math problems together
Similarities:	we both enjoy math
	we both like shopping

c) **Proximity**: The focus in Proximity is on the physical closeness of the subject and target, usually by choice, rather than the shared socio-cultural experience which may lead to proximity. For example:

Proximity:	we go to the same church
	we live on the same street
Similarities:	we are both Catholic

d) **Physical Appearance**: The focus in Physical Appearance is on the physical appearance of the target and there is no explicit commonality mentioned between subject and target. For example:

Physical Appearance:	she's pretty
	he smells nice
	he wears neat clothes
Similarities:	we both have red hair
	we both like the same clothes

e) **Character Admiration**: The focus in Character Admiration is on aspects of the target's character which the subject admires, rather than noting a commonality between target and subject. For example:

Character Admiration:	she's funny
	he's polite
	I admire his athletic ability
Similarities:	we're both funny
	we both have a lot of athletic ability

5. Dissimilarities

Responses in this category refer to a comparison drawn between the subject and target, in which a dissimilarity between them is found to be the basis for liking. There can be different types of dissimilarity mentioned. Dissimilarities can be reported in the form of a difference - which simply acknowledges a difference between the target and the subject (e.g., she has a different way of interacting). Dissimilarities can be stated in the form of a social comparison when the response introduces a competitive element into the comparison favoring either the subject or the target (e.g., she is richer than I, She is more popular than I). There can also be different areas of dissimilarity some of which make up separate subcategories.

5A) Dissimilarity - Demographics
5B) Dissimilarity - Interests, attitudes, behaviors, beliefs, interests, personality and lifestyles

5A) Demographics (see definition given for Similarities)

- he's a boy and I not
- we're so different, she's French and I'm Spanish
- we are different ages
- she isn't as attractive as me
- he's richer than I am
- I am taller than him
- she is older than me

5B) Interests, attitudes, beliefs, interests, personality and lifestyles (same definition as for Similarities)

- she likes different kinds of music
- our lifestyles are completely different
- she's different from me
- her lifestyle is much more exciting than mine
- his beliefs are even better formed than mine
- she is smarter in math
- I'm shy, but he's outgoing
- she's really popular with other people, compared to me
- she's more outgoing then I am
- he's more tolerant than I am

Distinguish this category from:

a) **Stimulation Value**: The focus in Stimulation value is on the effect of the target's behavior on the subject. The stimulating effects are due to the target himself and not due necessarily to any differences in interest or beliefs held by the target and the subject. For example:

    Stimulation Value: he is so exciting, because he is different from me
                                I really enjoy listening to his views on life which are
                                different from mine

    Dissimilarities: He has different world views than I
                                We have very different personalities

b) **Physical Appearance**: The focus in this category is on physical appearance, personal hygiene, grooming habits, etc. There is no explicit comparison made between target and subject. For example:

Physical Appearance:	She is pretty
	He has blonde hair
Dissimilarities:	I am prettier than her
	He has blonde hair, but I have red hair

c) **Character Admiration**: The focus in Character Admiration is on aspects of the target's character which are admired by the subject. There is no reference made to differences between the subject and target in terms of the specific characteristic being discussed. For example:

Character Admiration:	He is very friendly
	she is outgoing
Dissimilarities:	He is friendlier than I am
	I am shy, but she is outgoing

6. Physical Appearance and Characteristics

Responses in this category refer to physical appearance, person hygiene, grooming habits and any physical characteristic (sex, race, handicaps, body image, clothing, etc.) of the target.

- she's pretty
- he smells nice
- he's Chinese
- she always wears dresses

Distinguish this category from:

a) **Similarities**: The focus in Similarities is on an explicit commonality noted between subject and target, rather than simply mentioning a physical characteristic of the target. For example:

Similarities:	we're both tall
	she is blonde, like me
	he's got the same eye color
Physical Appearance:	she is blonde
	he's got blue eyes

b) **Dissimilarities**: The focus in Dissimilarities is on an explicit comparison made between subject and target highlighting a difference between them, rather than simply mentioning a physical characteristic of the target. For example:

Dissimilarities:	she's not as pretty as me
	he's taller than me
	he's better looking than me
Physical Appearance:	she's pretty
	he's tall

7. Physical Possessions

Responses in this category emphasize an admiration for - or a lusting after - another's possessions. The target is liked because of what he/she has. For example:

- he has a nice bicycle
- his parents own a condominium in Florida
- she brought a beautiful kitten to school
- she has a swimming pool and lets me swim in it

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Distinguish this category from:

a) **Stimulation Value**: The focus in Stimulation Value is on the effect of the target's behavior on the subject. The subject "gets off" on some aspect of the target's behavior. The stimulation effects are due to the target himself, not to any of his physical possessions. For example:

Stimulation Value:	she is fun to be with because she has...
	he's exciting
	I really enjoy being with him

Physical Possessions:	she has a computer
	he owns a swimming pool

b) **Social Behaviors - Sharing and Giving**: The focus in Social Behaviors - sharing and giving, in on the sharing or giving of objects between subject and target, with the emphasis on the interaction which takes place between the subject and target rather than the mere fact that the target possesses certain objects, etc.

Social Behaviors:	she shares her lunch with me
	he gave me a marble yesterday
	I gave him my new toy to play with

Physical Possessions:	he has a collection of marbles
	she has a large record collection

8. Character Admiration

Responses in this category refer to aspects of an individual's character - moral issues, general strengths, personality and competencies - which lead the subject to admire the target. Admiration for a friend's character entails the expression of value of his or her achievements and social responsibility, not his or her intrinsic worth. There can be different areas of Character Admiration.

Moral: Responses refer to issues pertaining to conforming to norms, values, authority, etc. Responses include references indicating that the target abides by generally accepted values, codes of behavior or the law. For example

- he's polite
- she doesn't cheat, swear, or anything like that
- she doesn't get into trouble

Strength of Character: Responses focus on strength of character reflecting independence, maturity, determination, self-esteem, resilience in the face of difficulty, issues of courage, sanity and mental stability.

- he's such a determined person
- she has the courage and confidence to succeed
- I admire her because she's not juvenile, like the rest
- she plays fair (a good sport)

Social competence and sociability: The focus here is on social skillfullness. Responses refer to the social adeptness of others, as well as the outcomes of such adeptness (i.e., subsequent popularity).

- he's popular with everyone
- she's friendly
- she's funny
- he gets along with everybody
- he's got a good sense of humor
- everybody likes him
- he's funny but he can be serious
- she's always happy
- she's not snotty

Competence: Responses here focus on the intellectual, physical and artistic competencies the target has, in the eyes of the subject.

- he's smart and does real well at his school work
- she's a brilliant pianist
- he works so fast and efficiently he gets everything done
- she's the best student in her class

Personality traits: Responses refer to the temperament, style or habitual characteristics of the target.

- she is quiet and thoughtful
- he is cheerful and flamboyant
- she is very serious
- she's caring
- he's sympathetic
- she is outgoing

Distinguish this category from:

a) **Specific social behaviors**: The focus in Specific Social Behaviors is on specific behaviors such as helping, giving, and sharing as opposed to the more global trait-like characteristics described in Character Admiration. For example:

Specific Social Behaviors:	she shares her stuff with everyone
	he helps younger children
	he gives his friends money

| **Character Admiration**: | she's friendly |
| | he's popular |

b) **Similarities and Dissimilarities**: The focus in Similarities and Dissimilarities is on an explicit comparison being made between target and subject rather than a description of the personality trait of the target. For example:

| **Similarities**: | we are both shy |
| | we are both weird and wild |

| **Dissimilarities**: | he is introverted and I am extraverted |

Character Admiration: she is always cheerful

c) **Global Evaluation**: The focus in Global Evaluation is on a more general evaluative description of the target rather than a specific personality trait. With Global Evaluation, there is no specific corresponding behavior, but rather the label (e.g., kind, nice) may be elicited by more than one behavior of the target. For example:

Global Evaluation:	she is nice
	he is kind
	she's just a nice person

Character Admiration: he is outgoing
he is quiet

d) **Genuineness**: The focus in Genuineness is on the sincerity within the friendship, as well as the honesty that has developed between the subject and target. For example:

Genuineness:	he's honest
	she doesn't lie to me
	I am honest with him

Character Admiration: he's polite

                                           she doesn't steal stuff

e) **Liking and Friendship**:   The focus in Liking and Friendship is on responses which do not actually indicate the reason for liking, but merely restates the liking or friendship status as the basis for liking. For example:

                Liking and Friendship: I really like him
                                                she really likes me

                Character Admiration: I like him because everybody else likes him
                                           She likes me because I'm popular

f) **General Compatibility/Companionship**: The focus in General compatibility is on responses which refer to the more personal or specific relationship between two friends. Responses reflect the familiarity and predictability of the relationship and the ease of relating to each other. For example:

                General Compatibility: we get along well together
                                                I enjoy her company

                Character Admiration: he gets along well with everybody
                                              everyone enjoys being around him
                                            because he's so popular

9. Global Evaluation

Responses in this category refer to any non-specific positive evaluative descriptor which refers to a general characteristic of the individual (e.g., nice, good) rather than to a specific behavior. In addition, the basis of the positive evaluative component - the specific behavior on which the evaluations are based - is not made explicit.

- she is nice to me
- she is good to me
- she is kind
- he is a good person
- she is nice

Distinguish this category from:

a) **Character Admiration** (see distinction made under Character Admiration)

b) **Specific Social Behaviors**: The focus in Specific Social Behaviors is on specific behaviors which occur between the target and subject. There is explicit reference made to the behaviors, such as sharing and helping rather than a global reference to positive qualities. For example:

                Specific Social Behaviors: she helped me with my work
                                                he always shares at recess
                                              he doesn't say anything mean to me

                Global Evaluation: she is kind
                                        he is nice

10. Stimulation Value

Responses in this category refer to the fact that the target or some aspect of the target's behavior has a positive, stimulating or entertaining effect on the subject. Stimulation value refers to the extent that the subject conceives of the friend as being interesting and imaginative, capable of presenting the subject with novel and interesting activities, and capable of allowing the subject to learn and extend present knowledge.

- I get lots of inspiration from her
- I have a good time with him
- we have fun together
- she makes me laugh
- she's exciting
- he's not boring to hang around with
- he's really fun to be with
- I'm not boring to be with
- she's not bored by me
- he is an interesting person
- she has ideas about what to do
- she shows me how to play new games
- he suggests something new to watch/do

Distinguish this category from:

a) **Ego Reinforcement**: The focus in Ego reinforcement is on the reinforcement provided by the target, for the subject's ego, such as praise, flattery or reassurance, rather than the stimulating effect of the target on the subject. For example:

| **Ego Reinforcement**: | She tells me that I'm pretty |
| | He says that I'm an okay person |

| **Stimulation Value**: | He is fun to be with |
| | I have a good time with him |

b) **Character Admiration**: The focus in Character Admiration is on aspects of the target's character which are admired by the subject rather than the effect of the target on the subject. For example:

| **Character Admiration**: | She's got a good sense of humor |
| | he's really good at sports |

| **Stimulation Value**: | She makes me laugh |
| | he's really fun to play sports with |

c) **Similarities**: The focus in Similarities is on an explicit comparison being made between subject and target rather than the effect of the target on the subject. For example:

Similarities:	we both enjoy basketball
	we like the same television shows
	we like the same things

| **Stimulation Value**: | he's really fun to play basketball with |
| | she is fun to be with |

d) **Common Activities**: The focus in Common Activities is on the mutual enjoyment of activities engaged in together rather than the effect of the target's behavior on the subject specifically. For example:

| **Common Activities**: | we play football together |
| | we hang out together |

<div align="center">

Stimulation Value:	It's exciting to play football with him
	she's fun to hang around with

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e) **General Compatibility/Companionship**: The focus in General compatibility is on the ease with which the individual's can relate to each other, the predictability and familiarity of the relationship rather than the positive or stimulating effect of the target on the subject or vice versa. For example:

General Compatibility:	we get along so well
	he's good company
	I enjoy her company
Stimulation Value:	She is fun to be with
	he's exciting

11. <u>Ego Reinforcement</u>

Responses in this category include specific reference to praise, flattery, compliments and expressions of positive feelings about you; reassurance of special affection or respect from the target. In other words, the target provides reinforcement for the subject's ego. The friend bolsters the self-concept. The subject is made to feel worthwhile, competent, important and deserving of praise and appreciation.

- she is always complimenting me
- he says nice things to me
- they make you feel wanted
- they give you encouragement
- she shows interest in what I do
- he doesn't put me down
- we tell each other when we look nice

Distinguish this category from:

a) **Specific Social Behaviors - Absence of negative behaviors**: The focus in Specific Social Behaviors - absence of negative behaviors is on the absence of such behaviors as aggression and dominance (e.g., bugging, teasing, etc.) Statements reflecting a lack of ego degradation are not coded here, but in Ego reinforcement. For example:

Absence of Negative Behaviors:	He doesn't boss me around
	He doesn't beat me up
	I don't yell at her
Ego Reinforcement:	I don't put her down

12. <u>Specific Social Behaviors</u>

Responses in this category include reference to the presence of three positive social behaviors: helping, sharing and giving as well as social gestures and finally, the absence of negative social behaviors such as aggression and dominance.

There are three different categories here including:

12a) Specific Social Behaviors (general helping)
12b) Specific Social Behaviors (sharing and giving)
12c) Specific Social Behaviors (social gesture)
12d) Specific Social Behaviors (absence of negative behavior)

On a general level the Specific Social Behaviors categories can be distinguished from:

a) **Character Admiration**: The focus in Character Admiration is not on specific behaviors, but rather aspects of the target's character which are admired by the subject. Specific Social Behaviors in contrast, is focused on behaviors which take place. For example:

Character Admiration: he is polite
I admire his courage
he's funny
she's smart
he is quiet and shy

Specific Social Behaviors: he's always helpful
she gives me things

b) **Global Evaluation**: The focus in Global Evaluation is not on specific behaviors but rather on a general overall evaluation of the target's character. For example:

Global Evaluation: she is kind
he is nice
I think he is a good person

Specific Social Behaviors: he helps me with my homework
she shares food with me

12a) Specific Social Behaviors: Helping

Responses in this subcategory refer to helping behavior offered by or to the target, which involve assistance in work or in any physical sense. Typical responses involve the word "help" or variations, although in some cases helpfulness is inferred from a description of behavior which aids or facilitates others. This dimension is essentially non-material and involves some effort on the part of the friend.

- ■ he helps me with my math homework
- ■ she helps me clean my room
- ■ I'd help him if he got hurt
- ■ she gets the little kids their lunch
- ■ he picked up my pencil when I dropped it
- ■ he helps me
- ■ I help him

Note: If the response is unprobed or the nature of the help giving is unclear, coded as General Help (12a)

12b) Specific Social Behavior: Sharing and Giving

Responses in this category refer to instances in which the target either shares something with, or gives something to, the subject or others. The object being shared is a physical material thing, not information, secrets, etc.

- ■ he gave me some candy
- ■ I give her things
- ■ we trade hockey cards
- ■ we buy each other things
- ■ he is always loaning people money if they don't have any
- ■ she shares things with other people

Distinguish this subcategory from:

a) **Physical Possessions**: The focus in Physical Possessions is on the actual possessions owned by the target, not on any transaction of the object between subject and target. This category emphasizes the envy or admiration by the subject for the target's possessions. For example:

Physical Possessions:	she has a neat computer
	he has a nice bike
Sharing and Giving:	he loans me his bike/car sometimes
	she buys me candy

12c) Specific Social Behaviors: Social Gestures

Social gestures are common everyday behaviors which are expected in any positive social exchange. They generally acknowledge or pay attention to an individual as opposed to ignoring them. Gestures include friendly overtures, invitations, welcomings, farewells, pleasantries, appropriate conversational interactions, etc. The can be verbal or nonverbal gestures.

- he invited me to his party
- we always say hello to each other
- she always answers my questions
- she gives me hugs
- I don't talk when he's talking

The reception of, or appropriate responses to such a gesture are also coded as social gesture

- she waved back to me when I waved
- he smiles at you when you walk by and says hello

Included here are references to maintaining some contact between subject and target.

- she phones me everyday
- we keep in touch
- he writes to me
- she pays attention to me
- I don't ignore him
- he asked me to come over to his house
- we invite each other for sleepovers
- we both smile at each other in the hallway

Distinguish this subcategory from:

a) **Common Activities**: The focus in Common Activities is on performance of the activities themselves, not on the initiation of, or overtures made prior to engaging in them. For example:

Common Activities:	we play hockey together
	we walk to school together
	we go shopping
Social Gestures:	he asked me to play hockey with them
	she said hello to me this morning

12d) Specific Social Behaviors: Absence of Negative Behaviors

Responses in this category refer to the absence of various negative behaviors

Absence of Aggressive Behavior - attacks on the subject, threats of an attack, conflicts of any kind either physical, verbal or nonverbal, behavior of any kind that is offensive to the respondent.

- we don't argue
- she doesn't yell at me

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- we don't fight a lot
- if she doesn't get mad at me a lot
- if he doesn't swear at me

Absence of Domineering Behavior - which reflects bossiness, attempts to control others, domineering or overly demanding behavior which implies domination of others.
- she doesn't try to boss me around
- she doesn't brag
- he doesn't try to get his own way all the time
- he's not bossy
- he doesn't act macho

Absence of Agonistic Behavior - which reflects annoying, but not overtly aggressive behavior.
- he doesn't tease everyone all the time
- he doesn't take off on me
- she doesn't chase me or tickle me
- he doesn't bug me

Distinguish this subcategory from:

a) **Ego Reinforcement**: The focus in Ego Reinforcement is on the special attention and respect which exists between friends. Statements which reflect a lack of ego degradation are coded here as well. For example:

Ego Reinforcement:	she doesn't put me down
	he doesn't tell me I'm a stupid person
Absence of Negative Beh.:	he doesn't boss me around
	I don't tell her what to do

13. Relationships with others

13A. Liking and Friendship

This category is for responses which do not actually indicate the reason for liking someone, but rather restates the liking or the friendship status as the basis for liking. This may include friendship status known to others.

- everyone knows he likes me
- I like her
- she is my best friend
- we are friends
- she tells me
- we care for each other
- we love each other
- she is a great friend
- I just like her
- he says he's my friend

13 B. General Compatibility/Companionship

This category includes reference to companionship, predictability of the relationship, issues of familiarity and the ease with which individuals can relate to each other. No mention is made as to the basis for such a relationship but the emphasis is on the quality of the interactions within the relationship.

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- we get along really well
- they're good company
- it's lonely without any friends
- it's nice to have them as friends
- you can just feel it
- it's a feeling I get
- we comfortable together
- gives me companionship

Distinguish these categories from:

a) **Character Admiration**: The focus in Character Admiration is on an individual's overall social skillfulness and how this often leads to popularity and being generally well-liked. For example:

Character Admiration: everybody likes him
she gets along well with everyone

Liking and Friendship: she likes me

Compatibility/Companionship:we get along together

b) **Stimulation Value**: The focus in Stimulation Value is on the effect that the target has on the subject, rather than on the general compatibility and friendship which exists between target and subject and which may result due to the stimulating effect of the target. For example:

Stimulation Value: she is fun because we get along so well
I like her because she is exciting

Compatibility/Companionship: we get along well together

Liking and Friendship: I like her

14. Cooperation/Reciprocity

Responses in this category refer to instances of cooperation, turn-taking, and reciprocation which serve to strengthen and maintain the friendship and which occur consistently within the relationship. Included here are specific references to cooperativeness and attempts at maintaining the equality of the relationship.

- we take turns getting our own way
- one time we do what he wants and the next time we do what I want to do
- we're both equal in the relationship, nobody tries to get their own way all the time
- if we have a disagreement, we try to work it out fairly
- we always take turns

Distinguish this category from:

a) **Specific Social Behaviors - Absence of Negative Behaviors**: The focus in the Absence of Negative Behavior category is on the absence of behaviors like aggression, dominance and agonism - not on the presence of reciprocity and equality in a relationship. For example:

Absence of Negative Beh: we don't argue
she doesn't boss me around

Cooperation: we take turns getting our own way
we're both equal in the relationship,
nobody is better than anyone else

15. Associative Liking

This category is for responses which indicate that some social relationship or association through a particular individual or group of individuals is the basis for liking.

- I like him because my mother babysits us
- I like her because she is my best friend's sister
- our parents are friends
- my parents like him
- he is friends with my boyfriend (which makes him my friend)
- we are friends from church

16. Acceptance

Acceptance deals with the acknowledgment of one's integrity, identity and individuality. Unconditional positive regard. A friend is expected to acknowledge one's rights and one's convictions even if he or she disagrees with you. This expectation is that the friend does not reject others because of their beliefs or opinions. The acceptance of what people are, in spite of the fact that they may have differences or shortcomings, is the important feature.

- she accepts me for what I am
- we respect each other
- she respects my right to do my own thing
- I like him even though he has all those problems
- he doesn't make fun of me for my religion
- my friends are considerate of my feelings
- they don't laugh at you because you are different

17. Loyalty and Commitment

Responses are scored in this category when the friendship expectation conceives of the friend as remaining a friend, regardless of the cost of doing so. It may be very taxing to the friendship in circumstances that strain the relationship. Examples of such strains are: moving away, betraying a trust, getting into trouble, hurting one's feelings, getting into a fight. In spite of such setbacks, the friendship is maintained. Explicit in such responses is the statement that the relationship continues despite such potential problems, or that these issues do not jeopardize the relationship. Responses in this category may also focus on behaviors that are characteristic of maintaining an ongoing friendship such as protection, support, dependability, confidentiality, loyalty and expectations that one may have of a good friend.

- when I get in trouble I can count on her to stand by me
- he really makes sure I am safe and comfortable, wherever we are
- I can trust her with my secrets
- he's always there for me
- I keep her secrets
- she can rely on me
- I stick up for him
- she will always be my friend
- we trust each other
- we're loyal to each other
- I depend on him
- he doesn't talk about me behind my back
- he doesn't tell people things I have said in confidence

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- he doesn't drop me when there is a better friend around
- she is still my friend, even though I tell her off once in a while
- I can tease him and it doesn't hurt his feelings
- we always make up after a fight
- she is my friend, no matter what happens
- we don't let petty fights split us up
- we won't turn on each other

Distinguish this category from:

a) **Genuineness**: The focus in Genuineness is on sincerity within the friendship, being truthful and honest with one's friends rather than behaviors which refer to maintaining an ongoing friendship, such as dependability, loyalty and support or keeping confidences. References to honesty or absence of lying are coded as Genuineness (not Loyalty and Commitment). For example:

Genuineness:	she is honest with me
	she doesn't lie to me
Loyalty and Commitment:	I can really trust him
	he's always there if I need him

18. Genuineness:

Responses in this category refer to sincerity within the friendship, as well as honesty of self-presentation, as opposed to misrepresentation of self (e.g., phoniness, faking, lying, manipulating or using others). This factor taps the "realness" dimension. Other terms might be transparency, authenticity, and spontaneity. The expectation is that a friend is open, honest about feelings, and straightforward. There is no need for the friend to keep a false front.

- she is sincere with people
- he doesn't pretend to be someone he is not
- I know that she really cares for me, it isn't an act
- she doesn't lie to me
- I am honest with him about the way I feel
- we don't use each other
- we always tell the truth to each other

Distinguish this category from:

a) **Character Admiration:** The focus in Character Admiration (Moral) is on conformity with generally accepted norms, values, and codes of behavior. For example:

Character Admiration: she doesn't steal stuff
he isn't rude

Genuineness: he doesn't lie to me
she is honest with me

b) **Loyalty and Commitment (see section on Loyalty and Commitment)**

19. **Intimacy**

Responses in this category focus on the possibility of mutually communicating and understanding private thoughts and feelings. Whether it refers to the closeness of communication, verbal or nonverbal, or providing comfort when dealing with difficult personal problems, the emphasis is on the unique quality of understanding that is possible between the two people. The subject expresses expectation that the friend possesses the ability to communicate his or her own inner feelings and private thoughts. The friend has the capacity to deal with personal problems.

- she really understands me
- I could tell her anything
- I can talk about my problems with him
- he listens to me
- we understand each other well
- I understand what she is going through
- she can confide in me
- I can share secrets with him
- we can tell each other anything
- we listen to each other
- we're going through the same things, so we understand each other
- we know each other so well
- we help each other personal problems
- I comfort her
- I go to him when I need advice

20. **Taking the Cross-Gender Perspective**

Responses in this category refer most commonly to the discussion of cross-gender friendship and involve some mention of learning about what it is like to be "male" or "female" or the suggestion that we need to learn about what the "other side" is all about. This category is not so much about being able to adopt someone else's perspective as much as it is about learning a different content area in perspective-taking.

- we need to find out what they think about certain things
- males and females think differently, and we need to find out about this
- I like to find out what they think about
- it's important to understand the "other sex"
- it's good to get the opinion of a girl

Distinguish this category from:

a) Dissimilarities: In Dissimilarities the focus is on how the friend might be different from the self for a variety of reasons (e.g., different interests, different opinions). In contrast, the Perspective-taking category deals with responses that refer to the need to understand or find out about someone of the opposite-gender and the value that learning these different opinions might have for the subject.

Dissimilarities: He has a different opinion from mine
        Boys like to do different things

Perspective-Taking: It is important to find out what boys think about stuff

21. <u>Cross-Gender Relationship Expectations</u>

Responses in this category refer to the problems or complications associated with having a friend of the opposite-gender which can range from the reactions of others (e.g., I get teased for having a friend that is a girl) to the expectations of others (e.g., if you hang out with a friend that is a girl for a long time, people assume you are going out) to the expectations that members of the friendship might have (e.g., a friendship can change if all of a sudden he/she decides they want to be more than friends).

- some boys are afraid to be friends with girls because they'll be bugged
- other people say we are boyfriend and girlfriend
- you have to ignore people who make fun of you for having a friend of the opposite-sex
- people bug him about our friendship and he starts hating me
- I know he is a friend if he doesn't hit on me
- our friendship might change if I decided I liked him as more than a friend