RUNNING HEAD: Adolescent romances: The role of same- and other-sex friends

# SHAPING ADOLESCENT HETEROSEXUAL ROMANTIC EXPERIENCES: CONTRIBUTIONS OF SAME- AND OTHER-SEX FRIENDSHIPS

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in the Department of Psychology
University of Saskatchewan
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Ву

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# **DEDICATION**

To my daughter Evolet Laurel, this was the first project that we have started together!

#### **ACKNOWLEDGEMENTS**

This project would not have taken its form now if it was not for the ideas and work of my late supervisor Dr. Lorrie Sippola. Her vision and research brought me to the University of Saskatchewan, and the data collected for one of her research projects provided the foundation for the current study, for that I thank her. I also have to thank my most helpful and supportive supervisor Dr. Gerry Farthing and committee members Dr. Patti McDougall and Dr. Ulrich Teucher. You have provided me with invaluable advice, guidance and knowledge extending beyond this immediate project. I consider myself truly lucky to have had an opportunity of knowing you and working with you.

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#### ABSTRACT

Contributing through the skills and capacities that they foster as well as through the quality of them, friendships have been identified as a powerful source of influence on adolescents' romantic experiences. Unlike same-sex friendships, the influence of adolescents' other-sex friendships on romantic relationships remains largely under-researched (Monsour, 2002; Sippola, 1999). In the current study I examined unique longitudinal and concurrent contributions of adolescents' experiences of relational authenticity and intimacy in other-sex friendships to adolescents' romantic intimacy and competence, while controlling for the influence of same-sex friendships.

Ninety-seven participants rated their perception of relational authenticity and relationship intimacy in Grade 9. In Grade 11 they rated their perception of friendship and romantic intimacy, as well as romantic competence. The present longitudinal findings showed that adolescents' earlier perception of relational authenticity in other-sex friendships predicted their subsequent perception of romantic intimacy and competence. The corresponding experience in same-sex friendships predicted only romantic competence in Grade 11 and only when the influence of other-sex friendships was not being considered. Although same-sex friendship intimacy in Grade 9 also demonstrated unique links to romantic intimacy in Grade 11, other-sex friendship intimacy in Grade 9 showed no such links. With regard to concurrent findings in Grade 11, experiences of intimacy in same- and other-sex friendships both predicted romantic intimacy in Grade 11. A discussion of possible explanations to the present research results is offered. Future research is suggested.

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#### Introduction

In adolescence, romantic relationships become not only normative but also remarkably important for growing youth. Research indicates that most young people have engaged in romantic relationships starting as early as 12 years of age (and perhaps even earlier) and have identified themselves as a couple to their parents and peers (Carver, Joyner, & Udry, 2003). During mid-adolescence youths begin to focus on their partner's personality characteristics, on their physical attractiveness, and on such relationship attributes as intimacy and support (Feiring, 1996). Steady progression to serious committed romantic relationships among youths becomes more important by late adolescence. Most adolescents report being in or having had a relationship that lasted almost two years (Carver et al., 2003). Longer duration and greater perceived commitment in the context of romantic relationships is known to foster greater sexual involvement as well as greater range of acceptable sexual activities, especially among females (Miller & Benson, 1999). Together with increased sexual activity, specifically intercourse, adolescents may begin experiencing more conflict in the context of romantic relationships (Rostosky, Galliher, Welsh, & Kawaguchi, 2000). Overall, it can be concluded that how adolescent heterosexual romantic relationship will be defined depends on the developmental period to which this definition is applied (e.g., see Furman & Wehner, 1997). At the same time, at least a potential for sexual activity, intimacy, passion, affiliation and support appear to be among the key characteristics of romantic relationships according to adolescents' own conceptualizations of romances (e.g., Brown, 1999; Connolly, Craig, Goldberg, & Pepler, 1999; Feiring, 1996; 1999).

Adolescents spend much of their time thinking about romance and related behaviours as well as talking extensively with their same-sex friends about others of the opposite sex (e.g.,

Connolly & Goldberg, 1999; Furman & Simon, 1999; Larson, Clore, & Wood, 1999; Simon, Eder, & Evans, 1992). Views of romantic relationships are proposed to include "expectations or beliefs concerning attachment, caretaking, sexuality, and affiliation in romantic relationships" (Furman & Simon, 1999, p. 80). The presence or absence of romantic relationships and the quality of these unions has been found to relate to the development of a romantic self-concept as well as to global self-esteem (Furman & Shaffer, 2003). Adolescent romantic experiences contribute to identity development and affect one's conception of self (Feiring, 1999a; Tabares & Gotman, 2003). They play a significant role in adolescents' socio-emotional development (Connolly & Johnson, 1996) and may serve as markers of social and personal maturity (Gray & Steinberg, 1999). It is also suggested that, alongside individual adjustment and functioning, adolescent romantic relationships have important implications for future adult heterosexual involvements (e.g., Furman & Flanagan, 1997; White & Humphrey, 1994). We may also hope that with greater understanding of the nature and processes involved in adolescent romantic participation something might be done to prevent what many describe as painful adolescent romantic experiences. Therefore, it is imperative that researchers explore the factors and processes that may influence the healthy development of these early romances.

The purpose of the current study was to examine the longitudinal and concurrent links between the specific experiences in adolescents' same- and other-sex friendships and their heterosexual romantic skills and capacities. Specifically, I examined whether youths' perception of relational authenticity in earlier close *other-sex* friendships would predict subsequent romantic competence and intimacy over and above that which would be predicted by adolescents' perception of relational authenticity in close *same-sex* friendships. In addition, I examined whether adolescents' other-sex friendship intimacy emerged as a unique predictor of

heterosexual romantic intimacy both concurrently and across time. It should be noted that the venue in which the data was collected did not permit questions about adolescents' sexual orientation or sexual activity. The wording in the questionnaires, however, made it explicit that the relationships which adolescents were asked about were heterosexual in nature.

It is important to discuss a few assumptions that contextualize concepts and constructs relevant to the present research. According to the scientists who study this developmental period in the Western tradition, adolescence is marked by significant intra-individual and contextual changes (Lerner et al., 1996) as well as a series of developmental tasks (e.g., see Klaczynski, 1990). First, establishing healthy satisfying relationships with same- and other-sex peers is seen as a major developmental task in adolescence (e.g., Richards, Crowe, Larson & Swarr, 1998). Adolescents' same-sex friendships tend to change in nature (Buhrmester, 1990) in part reflecting new developmental accomplishments of maturing youths (Berndt, 1982; see Selman, 1980). Establishing healthy, close relationships with other-sex peers requires adolescents to learn how to relate to the other-sex (Sippola, 1999) in a formerly unknown context of close other-sex friendships and heterosexual romantic unions likely rendering it as a more monumental task.

Within adolescent friendships, at least same-sex ones, a capacity for intimacy and the development of interpersonal competence are of central concern (Berndt, 1982; Collins, Hennighausen, Schmit, & Sroufe, 1997; Collins & Sroufe, 1999; Sullivan, 1953). They have significant implications for the development of these skills in future romantic relationships (Buhrmester, 1990). A typical research finding is that as a result of individual developmental achievements and on the basis of one's earlier relational experiences, the capacity for intimacy increases with age (e.g., Buhrmester, 1990; McNelles & Connolly, 1999) as do the demands for interpersonal competencies (Buhrmester, 1990). Suggesting that the capacities for intimacy and

interpersonal competence exist on a continuum rather than in an "all-or-nothing" form, both the quality and salience change across time and relationships (Buhrmester, 1990).

Further, researchers identify interactions with peers as one of the primary contexts in which youths define their self as a distinct authentic entity (McLennan & Pugh, 1999).

Researchers postulate that in adolescence young people need to define their identity which is partially induced by adolescents' tendency to take on a variety of new roles in different social contexts (Erikson, 1963; Finkenauer, Engels, Meeus, & Oosterwegel, 2002; Harter, 1997). Along with youths' need to belong, to feel recognized and to be accepted (typically satisfied in adolescents' friendships with peers), finding their own authenticity becomes one of the primary developmental tasks (La Gaipa 1979).

While this approach to understanding and studying the concept of self characterizes a more traditional North American or Western psychology view, there are a number of diverging conceptualizations of the construct of self that can be encountered in the relevant literature. William James, for example, conceived of self as a thought, a thinker (Gray, 2005). The thought, according to him emerged in relation to afeeling and gave it meaning. There appears to be a circular relationship between the self and a feeling. One recognizes the self from a feeling and one's thoughts allow for next feelings (the same or different) to acquire meaning. Hence the sense of self is produced. According to this view, there are multiple dimensions of the self: the continuous, the changing, the ambiguous, the unified and the plural self (Gray, 2005).

We find other no less complex views of self in the writings of de Munck (2000) and Chandler and colleagues (e.g., Chandler, 1994; Chandler et al., 2003). De Munck (2000) sees self as a universe that is a center for awareness, action, emotion and judgement. This universe presents a distinct and a more or less organized whole which exists against a backdrop of the

physical and social world and other "universes". According to Chandler, some adolescents (for example those of Native American ethnic background) weave their sense of self into the context of interpersonal networks. They define their identity by means of their social relationships (Chandler et al., 2003; Hart & Damon, 1986). Most of North American youth refer to the internally located kernel of their self as the essence of their identity (e.g., Chandler, 1994; Chandler et al., 2003; Hart, 1988; Harter, 1997). This view of one's identity corresponds to the one commonly adopted in the Western scientific tradition in which one's sense of identity is seen as having an essence or irreducible core (e.g., Chandler et al., 2003; Hart, 1988).

Although I recognize that debate about the self gives rise to a variety of conceptualizations about it, the view adopted in this study mostly closely adheres to the one accepted in the traditional Western psychology. In the Western psychological view, self is seen as self contained, independent, and autonomous entity (Markus & Kitayama, 1991). I rely on the concepts and constructs deemed applicable to the general population of the Westernized world. With this in mind I review the theoretical framework and existing research in which the present research questions were grounded.

# Adolescent Heterosexual Romantic Relationships and Close Same- and Other-Sex Friendships

With the rising interest in the research on adolescent romantic relationships (Furman, 2002), researchers are beginning to learn more about the nature of these relationships as well as about other relationships that contribute to the context, timing, and quality of early romantic unions. According to Simon, Bouchey, and Furman (1998) adolescents "are impacted by multiple levels of relationship systems, which include experiences in dyads, families (e.g., with the parents' marriage), peers groups, and cultures. Each of these levels is interrelated but exerts a

unique influence on adolescents' expanding social world" (p. 22). Adolescents' relationships with parents and peers are believed to have an important impact on their expectations and experiences in romantic relationships (Dunphy, 1963; Furman, 2002; Furman & Simon, 1999; Sullivan, 1953). The behavioural systems theory (e.g., see Furman & Simon, 1999), which offers an excellent theoretical foundation for the present study suggests that adolescents' romantic relationship expectations for affiliation-related relationship features such as reciprocity, mutuality and other characteristics of egalitarian relationships will be particularly shaped by those adolescents' peers.

Indeed, friendships with peers present one of the most important sources of influence on adolescent romantic involvement (e.g., Brown, 1999; Furman & Wehner, 1994; 1997). Further, researchers suggest that same- and other-sex friendships allow adolescents to practice and refine those skills that are later used to build and maintain romantic unions (Collins, Hennighausen, Schmit, & Sroufe, 1997; Connolly, Craig, Goldberg, & Pepler, 2004). Specifically, studies have found associations among experiences of intimacy, support, and negative interaction in adolescents' friendships and similar experiences in romantic relationships (Connolly, Furman, & Konarski, 2000; Feiring, 1999; Furman, 1999; Shulman, Levy-Shiff, Kedem, & Alon, 1997). In turn, what adolescents come to expect may affect the likelihood of their romantic involvement as well as the quality of their romantic participation (Cavanagh, 2007). For example, expectations may influence affective and cognitive appraisals as well as reactions to a partner's behaviour and relationship dynamics as is the case for rejection-sensitive youths (Downey et al., 1999; Purdie & Downey, 2000).

Despite the importance that peers and friends play in adolescent romantic relationships, little empirical research exploring the links among these relationships (Kuttler & La Greca,

2004) exists . Adolescent same-sex friendships have received considerably more attention (e.g., Seiffge- Krenke, 2000) than has the influence of adolescent other-sex friendships on romantic relationships. Even though recognized as important, contributions of other-sex friendships remain largely under-researched (Monsour, 2002; Sippola, 1999). Specifically, to my knowledge, there is no research exploring associations between adolescents' self-perceptions in their close other-sex friendships and their perceptions of romantic competency as well as their experiences of intimacy in romantic relationships.

The purpose of the present research was to begin to explore, through longitudinal and concurrent designs, the unique contributions of adolescent other-sex close friendships toward youths' experience of heterosexual romantic relationships and to identify some possible mechanisms underlying the development of romantic relationship from the standpoint of existing theories. Specifically, I addressed two research questions. First, controlling for the contributions of relational authenticity in close same-sex friendships, the present study examined the longitudinal connection between adolescents' sense of relational authenticity in close other-sex friendships in Grade 9 and their perception of romantic competence as well as their experience of romantic intimacy two years later in Grade 11. Second, the present study considered whether, even after controlling for intimacy reported in same-sex friendships, intimacy with romantic partners can be predicted by intimacy experienced in other-sex friendships both across time and concurrently. For the purposes of the present inquiry, relational authenticity is defined as the ability to be aware and to stay true to one's inner sense of self, and to express one's core feelings, inclinations, and motivations in the context of relationships with others (Kernis & Goldman, 2005). The definition of romantic competence was generated on the basis of Buhrmester's (1990) definition of interpersonal competence which includes one's ability to

manage conflict, provide emotional support, self-disclose and assert oneself in the context of a romantic relationship. Friendship and romantic intimacy in this study are seen as a form of mature closeness that has been described as a fundamental developmental task in preadolescence (Sharabany & Wiseman, 1993).

#### **Associations Between Adolescent Friendships and Heterosexual Romantic Relationships**

Although same-sex friendships, widely preferred in childhood, are still a popular choice in adolescence (Bukowski, Gauze, Hoza, & Newcomb, 1993; Furman & Buhrmester, 1992; Lempers & Clark-Lempers, 1993), young people begin to form relationships with peers of the other sex sometime during pre- or early adolescence (Buhrmester & Furman, 1987; McDougall & Hymel, 2007; Sippola, 1999) and eventually develop romantic relationships with them (Connolly et al., 1999). Both adolescent friendships and romantic relationships may be characterised as affiliative systems (Furman, 1999). Consistent with Sullivan's (1953) interpersonal theory, adolescents' relationships with same-sex friends are said to provide an important foundation for the development and practice of skills essential for the formation of future successful heterosexual relationships (Connolly et al., 2000). Furthermore, research guided by Sullivan's (1953) interpersonal theory demonstrated that adolescents' same-sex friendships indeed played a crucial role in adolescents' ability to establish voluntary, interdependent, and reciprocal relationships with equal others (e.g., Collins et al., 1997; Furman & Wehner, 1994; Seiffge-Krenke, 2000). Notably, much of the research either disregarded othersex platonic relationships or did not differentiate between same- and other-sex friendships (e.g., Connolly et al., 2000; Lempers & Clark-Lempers, 1993; Sharabany et al., 1981; Shulman & Scharf, 2000; also see Sippola, 1999).

According to Dunphy's (1963) seminal work that explored the developmental patterns of affiliations within the peer group, one of the primary functions of peer associations is to provide the opportunity for interactions with the other sex. Exposure to the other-sex in the context of the larger peer group seems to help adolescents to transition from exclusively same-sex friendships to heterosexual romantic relationships. The context of close opposite-sex friendships (more intimate than mixed-sex relationships or other-sex friend networks) may well provide adolescents with opportunities to practice and refine their relational skills initially developed in same-sex friendships (Kehoe, 2000). Research shows that the presence and size of mixed- and other-sex peer networks in adolescents' lives has an important impact on the timing of youths' romantic involvement and even on some aspects of relationship quality (e.g., Connolly, Furman, & Konarski, 2000; Feiring, 1996; 1999). Researchers speculate that other-sex friendship networks may foster the emergence of adolescent romances either through the introduction of viable candidates for romantic partnership (Connolly et al., 2000) or by itself functioning as a pool of potential partners (Feiring, 1999). Young people with more other-sex friends in early adolescence have been shown to maintain longer romances in mid and late adolescence and they tend to characterize them in affiliative terms such as reciprocity, mutuality and other characteristics of egalitarian relationships (Feiring, 1999).

It seems, then, that through other-sex friendships adolescents learn about the other sex (McDougall & Hymel, 2007; Poulin & Pederson, 2007) and about appropriate ways of interacting and affiliating with them (Feiring, 1999). Yet, although theoretically described to my knowledge, this compelling proposition has never been tested empirically. It is also still unknown whether the obtained knowledge and experience in other-sex friendships is associated with the quality of early romantic relationships. According to the theory, though, relationship

views in general are based on the integration of previous experiences and representations of other relationships (Furman & Wehner, 1994; Furman, 1999). Indeed, both friendships and romantic unions include mutuality, support, and intimate disclosure as their core characteristics (Furman & Shaffer, 2003). Although some bidirectional relationship between friendships and romances has also been found (Furman & Shaffer, 2003; Sieffge-Krenke, 2000; Sharabany & Wiseman, 1993), adolescents' friendships tend to develop before romantic relationships and are likely to influence subsequent romantic involvements (Furman, 1999). According to Furman and Wehner's (1994; 1997) theory of adolescent romantic development, same-sex friendships will influence the later developing other-sex friendships and both types of friendship will likely exert their unique effects on adolescent romantic participation.

Some unique functions of other sex friendships have been noted in existing research on children's and adolescents' friendships. Other-sex friendships are believed to serve some functions that are distinct from those accomplished by same-sex friendships (Buhrmester, 1996; McDougall & Hymel, 2007; Sippola, 1999). Although friendships with both same- and other-sex friends are expected to contribute significantly to the development of children and adolescents (Bukowski, Sippola, & Hoza, 1999), greater social competence is attributed to those children who do keep friendships with the other-sex as opposed to those who do not (Howes, 1988). In the absence of same-sex friends, early adolescent boys, but not girls, report greater perceived well-being if they have other-sex friends (Bukowski et al., 1999). It appears then that, for girls the two types of friendships function in complementary ways while for boys they serve as each others' back-up system.

Additional gender differences in same- and other-sex friendships have also been found.

Among adults, other-sex friendships appear to provide men with levels of companionship,

intimacy, and acceptance comparable to that of same-sex friendships (Rose, 1985) whereas women in the context of other-sex friendships experience more companionship but less intimacy and acceptance. Sex-related differences in friendship experience may be explained by a male tendency to approach same-sex and other-sex friendships in distinct ways (Rose, 1985). It could also be that, as a result of socialization, men and women attribute different meaning to the same friendship behaviour/activity. For instance, in their same-sex friendships, boys appear to foster a perception of intimacy through common activities (Buhrmester & Furman, 1987). This experience may readily transfer to their other-sex interactions. For girls, however, resulting in a perception of other-sex friendships as less intimate, common activities may satisfy a need for companionship but not intimacy.

To a certain extent, adolescents themselves distinguish between their same- and other-sex friendships (e.g. Collins & Repinski, 1994; Lempers & Clark- Lempers, 1993; McDougall & Hymel, 2007). Specifically, in their same-sex friendships as compared to other-sex ones, girls report more intimacy, characterized by the high level of self-disclosure (Collins & Repinski, 1994; Hartup, 1993), and support (Kuttler et al., 1999). Boys, on the other hand, report more self-esteem support (Kuttler et al., 1999), help (Poulin & Pederson, 2007), and self disclosure (Feiring 1999) in their friendships with the other-sex than with the same-sex peers. This difference likely is a result of gender segregation in childhood which shapes distinct gender-patterned styles of relating and relationship expectations (Maccoby, 1990).

In sum, although adolescents' same- and other-sex friendships share many common features, some of their functions and purposes are distinct (Kehoe, 2000). It is proposed here that the impact that other-sex friendships may have on adolescents' romances may be somewhat distinct from that of same-sex friendships. The skills and views developed and elaborated on

through adolescent friendships with the opposite-sex are likely to foster an interaction style and relationship view specific to heterosexual relationships thereby uniquely contributing to the nature of their heterosexual romantic experiences. Distinguishing contributions of these friendships from those of same-sex friends, the present study explored the role of other-sex friendships in understanding adolescent romantic relationships and attempted to depict some processes underlying their development.

#### **Heterosexual Romantic Intimacy and Competence**

Among the aspects that may be deemed important to the development of healthy heterosexual romantic relationships are one's sense of capacity for romantic intimacy and romantic competence.

Intimacy. Intimacy is a form of mature closeness that has been described as a fundamental developmental task in pre-adolescence (Sharabany & Wiseman, 1993; Sullivan, 1953) which, in turn, becomes central to adolescent social competence (e.g. Collins & Sroufe, 1999; Scharf & Mayseless, 2001). If viewed as a cognitive/affective construct, intimacy is one's subjective experience of emotional closeness to the other (Camarena, Sarigiani, and Petersen, 1990). Trust, emotional closeness, and self-disclosure are suggested to be the minimal key components of intimacy (Timmerman, 1991).

Some researchers (e.g., Hunter & Youniss, 1982; Youniss & Smollar, 1985) frame their discussion of friendship intimacy in the context of significant gender differences in adolescents' experiences of it. For example, adolescent girls' friendships are typically reported as more intimate than boys' friendships (Crothers, Field, & Kolbert, 2005; Lansford & Parker, 1999; Lempers & Clark-Lempers, 1993; Parker & Asher, 1993; Talbot, 2002). The friendships of girls are characterised by more frequent and intense self-disclosure and mutual closeness than boys'

friendships (Dolgin & Kim, 1994; Shulman et al., 1997). Boys, on the other hand, are more instrumental in their relationships with friends (e.g., Camarena et al., 1990). Other researchers, on the contrary, point to a lack of consistent empirical evidence for gender differences in the experience of friendship intimacy (e.g., Diaz & Berndt, 1982) and note considerable similarity between genders in the degree of self-disclosure and actual knowledge of intimate information about friends (e.g., Diaz & Berndt, 1982; Dolgin & Kim, 1994; Sharabany, Gershoni, & Hofman, 1981). Ultimately, Camarena and colleagues (1990) argue that significant gender differences in friendship intimacy may be a result of the different pathways utilized by girls and boys toward its achievement. Specifically, although for both boys and girlsself-disclosure (identified as a component of intimacy) is an important pathway to emotional closeness, for girls this pathway appears to be primary and dominant. While using self-disclosure, boys, also utilize shared activities as an important pathway towards intimacy with a close same-sex friend.

When it comes to romantic relationships, developmental researchers have also speculated that adolescents may experience relationship intimacy differently due to their gender (e.g., Leaper & Anderson, 1997; Shulman et al., 1997). It was suggested that being intimate as a romantic partner is an entirely novel experience particularly for males. Since, for adolescent males the ability to connect intimately to a relationship partner is a new developmental task (Leaper & Anderson, 1997; Shulman et al., 1997), developing an identity as a romantic partner may be especially challenging., . For females, due to socialisation pressures (Maccoby, 1990, 1998), the need to be connected and intimate is an early key concern in close relationships. Indeed, in accordance with social prescriptions, girls are often encouraged to adopt a communal-oriented style of relating, to care about other people's feelings, to engage in self-disclosure, and to talk about their emotions (Maccoby, 1990, 1998). Thus, for girls, the ability to relate in

intimate ways with other-sex friends and romantic partners should be less of a novel and challenging task. Also, differences in socialization and in patterns of relating to close same-sex friends may result in different romantic expectations for boys and girls once they begin entering romantic relationships (Leaper & Anderson, 1997).

Alternatively, adolescents' experiences in other-sex friendships may balance out this gender difference in romantic expectations. Leaper and Anderson (1997) suggest that both males and females may learn valuable skills in their other-sex friendships. Males may learn to self-disclose and be more supportive while females learn to be more assertive, direct and instrumental in their interests. In other words, through other-sex friendships both genders may learn communication and relational skills that are more adaptive for other-sex unions (Sippola, 1999). These skills are then supposed to foster successful interactions in the context of heterosexual romantic relationships.

Although romantic intimacy is likely more characteristic of later adolescent romances (Furman & Wehner, 1997), youths approach their romantic relationships with an expectation of intimacy (Smetana et al., 2006). In fact, Feiring (1996) reported that feelings of support, companionship, and intimacy form the core or foundation of adolescents' romantic relationships. Moreover, capacity for intimacy contributes strongly to adolescents' ability to form and maintain romantic relationships (e. g., Collins et al., 1997). Intimacy in romantic relationships, along with adolescents' ability to integrate a developing sense of identity as a romantic partner, is believed to be essential for subsequently achieving mature, long-lasting, and intimate adult romances (Grover & Nangle, 2007). This apparent significance of the capacity for romantic intimacy suggests the need for further investigation into factors that may be associated with healthy

patterns of its development. Also important is an exploration of a possible unique role played by other-sex friendships in shaping intimacy in the romantic context.

Competence. One's capacity for intimacy appears to have a bidirectional relationship with the presence of interpersonal competencies required in close relationships (Buhrmester, 1990). Experiences in intimate friendships foster the development of interpersonal competencies. Interpersonal competence determines somewhat one's success in developing relationship intimacy. Both intimacy and interpersonal competencies acquire greater importance in adolescent relationships (Buhrmester, 1990) and appear essential for the development and maintenance of adolescent romantic relationships (Buhrmester, Furman, Wittenburg, & Reiss, 1988).

Interestingly, there is no one uniform definition of romantic competence and researchers recognize that no one conceptualization is likely to cover all of the components involved in the construct (Davila et al., 2007). There is, however, apparent consensus regarding the notion that romantic competence is a multidimensional construct the domains of which tap into a variety of only moderately inter-correlated relational skills (Buhrmester et al., 1988; Davila et al., 2007). It is likely, therefore, that an individual may be skilled in one domain and lack such competence in another (Buhrmester et al., 1988).

Overall, for many researchers (e.g., Donnellan, Larsen-Rife, & Conger, 2005), competence seems to encompass a set of adaptive behaviours that allow an individual to form enduring and satisfying romantic relationships. For example, Davila et al. (2007) postulate that "romantic competence is about being able to negotiate both positive and negative situations in ways that allow adolescents ultimately to increase their ability to function adaptively" (p. 537). For the purposes of the present study, Buhrmester's (Buhrmester et al., 1988; Buhrmester, 1990)

definition of interpersonal competency was adapted to define romantic competence. Specifically, romantic competence was defined as one's ability to manage conflict, provide emotional support, self-disclose and assert oneself in the context of a romantic relationship.

Compared to their same-sex friendships, adolescents report less competence in their interactions with romantic partners (Burhmester et al., 1988). Given that having romantic relationships is novel in youths' lives and presents them with new relational challenges (Grover & Nangle, 2007; Furman, 2002; Furman & Wehner, 1997), Burhmester's finding intuitively makes sense. At the same time, since adolescents' perceptions of their own romantic competence are related to better psychological adjustment (Bouchey, 2007), and actual behaviour in such relationships (Buhrmester, 1990), the presence of competence in adolescent romantic relationships has significant implications for romantic functioning. Lack of competence may be exhibited in a form of anxiety about dating and romantic involvement which may have a detrimental impact on adolescents' participation in and the quality of their early romantic unions (Davila, Stroud, Miller, & Steinberg, 2007). Given that self-perception of romantic competence has important implications for the development of healthy romantic relationships and adolescents' individual adjustment in this context, there is a standing need to understand the nature and role of the factors potentially contributing to its development.

# **Relational Authenticity in Other-sex Friendships**

According to Sullivan (1953), social competence, developed in interactions with same-sex peers, is required if young people are to successfully establish intimacy with the other-sex. Some skills and competencies acquired in same-sex friendships overlap with those required in hetero-social interactions. Still, researchers argue that the latter also requires a set of unique competencies (e.g., Grover, Nangle Serwik, & Zeff, 2007). The other-sex friendship context also

presents adolescents with a new challenge, namely, the need to resolve a crucial developmental task which is the ability to develop a clear sense of one's identity along with the capacity for intimacy in the relationship with the other sex (Erikson, 1963).

During adolescence in Western cultures, young people become increasingly aware of the differentiation of their self-concept. This differentiation comes as a consequence of taking on the multiple social roles across different social contexts, initially resulting in an especially volatile self-concept (Harter, 1990). Questions of "who is the true me" come to the forefront of adolescents' concerns as does the ability to express oneself in line with authentic thoughts, beliefs, needs, and preferences, that is, to "own" one's voice (Harter, 2002; Harter, Waters, & Whitesell, 1997). However, in the context of volatility, adolescents seem to refer to their verbal behaviour as the means by which they either express their true, authentic self or display false self-behaviour through lack of voice (Harter, 2002; Harter et al., 1997). This ability to be aware and to stay true to one's inner sense of self and to express one's core feelings, inclinations, and motivations in the context of relationships with others may be referred to as relational authenticity (Kernis & Goldman, 2005). Inauthenticity, on the other hand, is identified as "a condition of falseness, either to oneself or to others" (Gecas & Mortimer, 1987, p. 269).

Although some researchers associate certain inauthenticity with adaptive qualities which reflect their ability to cope with different social roles (Snyder, 1987), adolescents themselves regard behaving in a non-authentic manner as a less than an admirable self-quality (Harter, 2002). Inauthenticity in a relational context in general (e.g., parents, peers, teachers, etc.) is also associated with lower levels of relational and global self-esteem, depressed affect, and a sense of hopelessness (Harter et al., 1997). In contrast, authenticity is associated with higher levels of self-esteem and cheerfulness (Harter, 2002).

Harter (2002) writes that according to Jordan and Miller (Wellsley's Stone Center) one's profound sense of authentic self is formed in a relational context and is simultaneously associated with the growth of relationships with close others. It is suggested that in their close friendships adolescents' receive an opportunity to disclose their deepest thoughts and feelings and, in the process, to clarify their sense of true self (Sippola & Bukowski, 1999). The ability to express their innermost ideas and feelings promotes adolescents' sense of integrated, authentic self. However, if young people feel that they cannot express their true beliefs or feelings, a sense of "false" (to use Harter's term) or "divided" (Sippola's and Bukowski's construct) self is likely to emerge. Researchers find that adolescents will act in a non-authentic manner if their peers do not like or accept their true selves (Harter, 2002). Under such circumstances adolescents are likely to compromise their authenticity in order to meet others' standards and to gain approval. Researchers (e.g., Harter, 1997) report that adolescents' voice or lack of voice (inhibition of own thoughts and expressions [Gilligan, 1982]) is supported differently depending on the relationship in which they are involved. Adolescent girls' voice is highest with friends and classmates of the same gender and lowest with boys (Harter, 1997). Gilligan (e.g., 1982), in general, argues that adolescent girls, as compared to boys, are most likely to experience the "lack of voice". However Harter (1997) reports no systematic empirical evidence supporting gender differences in the level of voice. Friendships with the other-sex may be especially conducive to the development of a divided self because these new partners' are likely to hold different expectations than those held by same-sex friends and to treat adolescents like no one before (Sippola & Bukowski, 1999).

Since much of adolescents' hetero-social interactions occur in the context of mixed-sex peer groups (Dunphy, 1963), it is important to consider how the relational contexts affect the

development of adolescents' sense of relational authenticity. Indeed, according to adolescents, the sense of true or false self, is found in the interpersonal context (Harter, 1990) and the lack of voice appears to be the most pronounced in adolescents' interactions with the other sex (Harter, 1990; Harter et al., 1997). Young people appear to be most concerned with threatening their relationship with a partner of the opposite sex as well as pleasing and impressing others. Thus to keep relationships in tact, they tend to opt for a lack of voice and the display of false self (Harter, 1990; Harter et al., 1997).

It is quite possible that the context of close other-sex friendships provides youths with one of their first opportunities to self disclose their true feelings, beliefs, and needs, etc. to a partner of the opposite sex (Furman & Shaffer, 1999), and, therefore, to gain confidence and comfort in interacting with the other sex (see Sippola, 1999). Arguably, the ability to behave in a relationally authentic way with a friend of the other sex should be, at least in part, responsible for what adolescents learn about their relationships with the other-sex. This knowledge may significantly and uniquely contribute to adolescents' feelings of competence in a romantic context and to the ability to develop a deep intimate relationship with a romantic partner. Supporting this proposition is the finding that the quality of adolescents' other-sex friendships significantly predicted romantic competence above what was accounted for by same-sex friendship quality (Kehoe, 2000).

# Linking Friendship Authenticity to Heterosexual Romantic Competence and Intimacy

Similar to the experience of relational authenticity, the experience of intimacyincludes self-disclosure as its essential component (Berndt, 1982; Collins & Laursen, 2004; Reisman, 1990; Reis & Shaver, 1988; Sippola & Bukowski, 1999). Authenticity, according to Downing (2008), may be characterised as one's actions (that is, acting and speaking out in ways that are

true to the internally perceived self). Intimacy, on the other hand, is a process that takes place in a relationship. Intimacy in older adolescence is identified as one's feelings of being understood and accepted along with satisfaction with one's relationship (Rosenthal, Gurney, & Moore, 1981). Downing suggests that authenticity (i.e., being able to display true self-behaviour and express one's deepest thoughts and feelings without the fear of rejection) may influence intimacy.

Indeed, adolescent males, for example, may relate intimately to a close other only when feeling accepted in a relationship (Shulman et al., 1997). In turn, research shows that one of the most common self-reported motives for behaving inauthentically is the need to impress and be accepted by others (Harter, 1997). By extension, if an adolescent learns to inhibit a true self in relationships with a close friend, it is likely that this behaviour will be transferred to other relationships with significant others, for example, romantic partners. That is, the way peers approve of and support authentic expressions/disclosures of adolescent friends may not only influence the development and experience of intimacy across all friendship contexts but may also affect adolescent's perception of intimacy in the context of romantic relationships. This need for approval may be especially true of other-sex friendships which, arguably, serve as unique sources of knowledge about the opposite sex and of appropriate behaviour with them.

How adolescents learn to behave with other-sex friends will likely also uniquely influence their competence in heterosexual romantic relationships. Specifically, interpersonal competence implies an ability to initiate relationships, to appropriately self-disclose and openly express personal opinions as well as to provide emotional support to others (Buhrmester, 1990). These skills, according to Burmester (1990), are needed to develop mature romantic relationships. Arguably, in order to act in interpersonally competent ways, adolescents need to

feel confident and comfortable with their true self. For example, in order to constructively manage conflict in a close relationship, adolescents should be able to express their true feelings and thoughts thereby making relational authenticity a key ingredient in maintaining healthy relationships. On the contrary and promoting subordination, fear of rejection and of loss of support may provoke adolescents to inhibit their true self which is incompatible with authenticity (Harter, 2002). Perceptions of relational authenticity in both same- and other- sex friendships are likely to contribute to adolescents' ability to learn about the true self in the context of these relationships. Nevertheless, other-sex friendships are likely to contribute differently to adolescents' authenticity in relationships with the other sex thereby influencing their sense of romantic competence (Sippola, Buchanan, & Kehoe, 2005).

The present study was designed to assess possible associations between adolescents' selfperception of relational authenticity with other-sex best friends and their subsequent sense of heterosexual romantic competence and romantic intimacy while controlling for the perception of relational authenticity in same-sex best friendships.

## **Intimacy in Friendships and Heterosexual Romantic Relationships**

Since adolescents' friends are the primary agents who are able to satisfy this essential need in adolescence (Sullivan, 1953), intimacy becomes a characteristic feature of youths' friendships in early adolescence (Berndt, 1982; Collins & Laursen, 2004; Hartup, 1993; Sullivan, 1953). Through their friendships adolescents not only satisfy their need for intimacy but also develop their own ability to be intimate in a reciprocal manner (Furman & Wehner, 1994). A common finding in developmental literature is that intimacy in same-sex friendships is consistently greater than in other-sex friendships (e.g. Collins & Repinski, 1994; Hartup, 1993; Sharabany, Gershoni, & Hofman, 1981). Researchers argue that it is adolescents' same-sex

friendships that provide a context supportive of the ability to develop intimacy with a close other in a reciprocal and mutual fashion (Furman & Wehner, 1994; Seiffge-Krenke, 2002; Shulman et al., 1997). Nevertheless, the gap between same- and other-sex friendships decreases with increasing age as adolescents begin to report greater intimacy with the other sex (e.g., Sharabany et al., 1981).

Although how partners achieve intimacy seems to depend on gender (Buhrmester & Furman, 1987; Leaper, Carson, Baker, Holliday, & Myers, 1995), other-sex friendships appear to satisfy adolescents' need for intimacy (Monsour, 2002). Indeed, male and female socialization fosters the development of different relational styles (Maccoby, 1988, 1990; Monsour, 2002) which both genders bring into their other-sex relationships. Arguably, on the one hand girls' style of relating, characterised by positive affect, use of endearing terms, close physical proximity, and intimate self-disclosure (Benenson, 1993, Maccoby, 1998, Brown et al., 1999, develops in their dyadic friendships. In their interactions, girls exhibit more persuasion and enabling (Leaper, 1994; Maccoby, 1990). Boys, on the other hand, are known to prefer more of a "rough and tumble" play and interactions in the larger groups (Maccoby, 1988; Lever, 1988), make more direct demands and use restrictive conversations when trying to exert influence (Leaper, 1994; Maccoby, 1990).

The styles of relating and the gender-specific skills characteristic of same-sex friendships are likely to shape relational experiences in ways unique to other-sex relationships. For example, likely as a result of the more nurturing and supportive ways of relating which girls bring into their relationships, other-sex friendships for boys appear to bring more positive rewards for their individual adjustment and functioning than same-sex liaisons (Monsour, 2002). In contrast, research shows that in adult other-sex relationships men tend to interrupt women assuming the

position of dominance (McCarrick, Madersheir, & Silbrgeld, 1981). Adolescent boys perceive significantly less difficulty in trying to influence girls while the opposite is true of girls (Serbin, Aprafkin, Elman, & Doyle, 1984).

Similarly, it may be suggested that the way adolescents achieve and experience intimacy in other-sex friendships is likely to differ from their same-sex friendships. For example, girls appear to promote same-sex friendship intimacy through intense self-disclosure (Reisman, 1990) while boys develop intimacy through shared activity (Buhermester & Furman, 1987). At the same time, adolescent boys and young men are more willing to self-disclose in other-sex friendships (Reisman, 1990), suggesting that the gender of their relationship partner plays a significant role in the way that males will achieve closeness. Indeed, some research indicates that experiences in same-sex friendships do not explain intimacy in adolescents' romantic relationships (Shulman et al., 1997). Moreover, other-sex but not same-sex friendship quality significantly predicts adolescents' romantic intimacy (e.g., Kehoe, 2000). In contrast, Seiffge-Krenke (2000) found that the experience of intimacy in same-sex friendships was associated with subsequent intimacy experienced in romantic relationship. Similar results were obtained by Connolly et al. (2000) and show that the quality of adolescents' same-sex friendships predicted similar aspects of romantic relationships.

However, even when romantic intimacy is associated with experiences in same-sex friendships, evidence suggests that a certain amount of variation in the experience of romantic intimacy cannot be explained by the contributions of intimacy experiences in same-sex friendships (Seiffge-Krenke, 2000) leaving other-sex friendships as another viable, yet untested, alternative. Notably, having a peer of the other sex as one's close partner is a shared characteristic of other-sex friendships and romantic relationships likely increases the likelihood

that the two share certain relationship experiences. At the same time, Connolly, Craig, Goldberg and Pepler (1999) found that even at these early stages of romantic development early adolescents differentiate between romantic relationships and platonic other-sex friendships. They tend to think of romances more in terms of passion and commitment. These are later superseded by references to intimacy while affiliation was ascribed more to the friendships. The goal of the second research question in the present study was to explore the unique link between adolescents' experience of intimacy in other-sex friendships and the corresponding experience in romantic unions while controlling for intimacy experiences in same-sex best friendships.

# The present study

In the current project two research questions were addressed. Both aim to further explore the effects of other-sex platonic friendships on adolescents' emotional and social development in the context of their heterosexual romantic relationships. First, the present study was designed to explore whether adolescents' self-perception of relational authenticity in other-sex best friendships in Grade 9 predict the development of their subsequent romantic competence and romantic intimacy in Grade 11 over and above what may be accounted for by the perception of relational authenticity in same-sex friendships in Grade 9. Second, of interest in the present study was whether a unique link exists between other-sex friendship intimacy and romantic intimacy concurrently (within Grade 11) as well as longitudinally (from Grade 9 friendships to Grade 11 romantic relationships). According to the work carried out by Kehoe (2000), there are significant concurrent associations between other-sex friendships' quality and romantic intimacy in adolescence. Extending Kehoe's research findings, I examined whether experience of intimacy (not included as a part of friendship quality in Kehoe's study) in close other-sex friendships

predicted romantic intimacy even after controlling for the effects of the perception of intimacy in close same-sex friendships.

#### Method

### **Participants**

High school students from three public schools in a mid-size city in the Canadian prairies took part in a larger cross-sectional/longitudinal project (see Appendix A for ethics approval). In the spring of 1999 (Wave 1 in the current project) and upon signing the consent form and receiving written parental approval (parental consent form), 252 Grade 9 students participated in the study. Two years later, 140 Grade 11 students participated in a second wave of data collection. These 140 students comprised my initial sample.

Several selection criteria were used to determine the final sample in the present study. Specifically, for the purposes of longitudinal analysis (predicting Grade 11 romantic experiences from Grade 9 friendship experiences), participation at both data collection times was a prerequisite for inclusion in the final sample. The second selection criterion required adolescents to have same- and other-sex friends in Grade 9 and 11, and a romantic partner in Grade. This criterion automatically selected against those adolescents who did not have a romantic partner in/before Grade 11<sup>1</sup>.

Imposing this condition allowed me to answer the question of whether adolescents' preceding (Grade 9) as well as concurrent (Grade 11) relationships with friends contributed to their Grade 11 relationships with romantic partners. Out of the 124 students who participated at both time points of data collection, 97 adolescents who had a romantic partner in Grade 11 (either at the time of the study or within the same year) were included in the final sample. There were no incentives provided for the participation in the study (see Kehoe, 2000). Participants

were assured confidentiality of their responses through written consent forms (Appendix B) provided to them prior to participation. Students' parents were also mailed a parental consent form to be signed (Appendix C) as well as a letter informing them about the study (Appendix D). Note that in the venue in which the data was collected questions about adolescents' sexual orientation or experience, race, and ethnicity, etc., were not permitted.

#### Measures

The measures that were used in the present study were part of a larger package of questionnaires presented to students taking part in the larger cross-sectional/longitudinal study. The scale scores were computed for each participant by producing a mean of their responses on each given variable. Response to at least 80% of the questions comprising the scale was needed to compute a mean score for each participant. A detailed description of each measure used in the present project is presented below.

Measure of Relational Authenticity for same-sex and other-sex friends. This measure is designed to assess two intrapersonal domains (emotional self-disclosure and divided self) of adolescent's experiences in relationships with others, and was used previously and reliably by Sippola and Bukowski in the study which included boys and girls (1999) (Appendix E). The 7-item *Emotional Self-Disclosure* subscale may be best seen as tapping into the construct of "voice", discussed in the literature review section of this thesis. Specifically, the Emotional Self-Disclosure subscale assesses adolescents' ability to express themselves to others even when their own opinions or feelings conflict with those of others (e.g., "I try to avoid getting into arguments with my male friends"). The 7-item *Divided Self* subscale taps into adolescents' ability to reveal their true self to their close friends (e.g., "I feel I have to act a certain way to please my female friends"). Items assessing the "divided self" construct were derived from the *Silencing of the Self* 

Scale (Jack & Dill, 1992) designed to assess women's schemas regarding their initiation and maintenance of intimate relationships. These two subscales go together to comprise the 14-item *Measure of Relational Authenticity (MRA)*, which students filled out for both their same-sex (SS) and other-sex (OS) friendships. Students rated on a five point Likert scale the extent to which they felt able to express their feelings and opinions, as well as behave in a way true to their inner self (1= "strongly disagree" to 5 = "strongly agree").

The questions were presented in a different order to male and female participants<sup>2</sup>. The words "male" and "female" were inserted appropriately such that adolescents were being asked about their same- and other-sex friends. The necessary items (those constructed to guard against a positive response set) were reverse coded to yield a measure of relational authenticity<sup>3</sup>. Internal consistency of this scale was computed for SS ( $\alpha = .48$ ) and OS ( $\alpha = .88$ ) friendships. Given that internal reliability for the Measure of Relational Authenticity for SS friendships was unacceptably low, three items that did not correlate well with the entire scale were removed to improve the internal consistency of the SS scale. With the removal of the two Emotional Selfdisclosure items, number 12 ("My friends don't really know the 'true' me") and number 13 ("I try to hide my feelings when I think that they will cause trouble between me and my friends"), as well as number 14 from the Divided Self subscale ("In order for my friends to like me, I cannot reveal the 'true' me'), the internal consistency for the total scale (SS) was increased to  $\alpha = .65$ . The OS MRA scale was adjusted for item equivalency. The removal of the items 12, 13 and 14 from this scale resulted in an internal consistency coefficient of  $\alpha = .87$ , which is still considered to be high. The actual range of mean scores in the present study was 1.91 to 4.64 for SS MRA and 1.45 to 5 for OS MRA. A higher scale score indicates greater relational authenticity.

Friendship Intimacy Scale, same- and other-sex. The Friendship Intimacy Scale (FIS); (Appendix F), assessing adolescents' perception of intimacy with their same-sex (SS) and other-sex (OS) friends was adapted from Sharabany's Intimate Friendship Scale (1994). The scale was originally developed by Sharabany in 1974, whose conceptualisation of intimate friendship was shaped by three sources: (1) the salient elements of friendship derived from a Webster dictionary, (2) Runner's (1937) sociological studies, and (3) psychoanalytic literature (Sharabany, 1994). Sharabany's definition of intimate friendship includes "configuration of diverse, but coherently related quantitatively commensurate elements" (1994, p. 451) of frankness and spontaneity, sensitivity and knowing, attachment, common activities, trust and loyalty, giving and sharing, imposition, and exclusiveness in a relationship.

Five of the original intimacy dimensions are represented in the twenty item scale filled out by the participants (Sharabany, 1994). These dimensions are

- (1) attachment, measuring connection and importance felt towards a friend (e.g., "I like my friend")
- (2) trust and loyalty, assesses adolescents' ability to keep secrets, supportiveness, and commitment as friends (e.g., "I tell people nice things about my friend")
- sensitivity and knowing, an aspect of intimacy, achieved not through self-disclosure, but rather through empathy and understanding towards a friend. This dimension reflects either accurate sensitivity or erroneous assumptions on a part of a friend (e.g., "I know how my friend feels about me").
- (4) common activities, perception of intimacy reflected in the time shared in joint activities (e.g., "I work with my friend on some of his/her hobbies").
- (5) frankness and spontaneity, ability to self-disclose things about oneself and a close other in the context of their relationship (e.g., "I feel free to talk with my friend about almost everything").

Participants rated their agreement with each of the 20 statements included in the study on a 6 point Likert scale, ranging from (1) strongly disagree to (6) strongly agree. The actual range of mean scores was 3.40 to 5.80 for SS FIS (Grade 9), 3.00 to 5.85 for OS FIS (Grade 9); in Grade 11 it was 3.45 to 6.00 for SS FIS and 3.00 to 6.00 for OS FIS. A total score for the entire

measure was created by calculating the mean scores of all the items in the measure (see Results section).

A number of empirical studies have assessed the validity and reliability of this construct. Good internal consistency for each of the eight dimensions, ranging from .72 to .89 (see Sharabany 1994 for the review of the studies) was found. In the current study, internal consistency of the scale was calculated for SS and OS friendships in both Grade 9 and 11. Reliability coefficients for the total score in Grade 9 included  $\alpha$  = .87 for SS friendships and  $\alpha$  = .92 for OS friendships. The internal reliability for the Grade 9 FIS subscales ranged between  $\alpha$  = .46 and  $\alpha$  = .77 for SS and  $\alpha$  = .65 and  $\alpha$  = .82 for OS. Reliability coefficients for the total score in Grade 11 were  $\alpha$  = .90 for SS friendships and  $\alpha$  = .93 for OS friendships. The internal consistency for the Grade11 FIS subscales ranged between  $\alpha$  = .55 and  $\alpha$  = .73 for SS and  $\alpha$  = .69 and  $\alpha$  = .80 for OS.

By testing student's intimacy in their reciprocated versus non-reciprocating friendships, researchers were able to demonstrate the criterion validity of the scale (see Sharabany, 1994). The test of the scales' association with a set of other measures (e.g., social desirability, popularity, and IQ) demonstrated the discriminant validity of the FIS. Finally, predictive validity of the scale has been tested and indicates that the measure assesses stable and predictable aspects of friendship intimacy, especially among girls.

Sharabany et al. (1981) pointed out that their conceptualization of intimacy characterises friendships involving both same- and other-sex peers, and that the sum of the intimacy elements reveals the overall measure of intimacy in a given relationship. As such, this scale was used to assess intimacy in adolescents' same- and other-sex friendships.

Measure of Intimacy in Adolescent Romantic Relationships. To create a measure of intimacy in adolescent romantic relationships in the current study, Sharabany's Intimate Friendship Scale (Sharabany, 1994) was adapted (Appendix G), by substituting the word "boyfriend/girlfriend" for the word "friend". Aside from the word substitution, this scale retained all of the same characteristics as the Friendship Intimacy Scale (see above). Participants filled out this scale in Grade 11 only. Internal reliability of this scale in the current study was deemed high, at  $\alpha = .94^4$ . The actual range of the mean scores for the total scale was .00 to .70 for the reflected and log 10 transformed variable (refer to results section for an explanation) and 2.90 to 6.00 for the non-transformed variable. The internal reliability for the subscales on the measure of intimacy in adolescent romantic relationships (Grade 11) ranged between  $\alpha = .74$  and  $\alpha = .80$ .

Romantic Competence Scale. Romantic Competence Scale (RCS); (Appendix H), used in this study in Grade 11, is a modified version of Buhrmester's (1990) Adolescent Interpersonal Competence Questionnaire (AICQ), which, in turn, is a modified version of the original Interpersonal Competence Questionnaire (ICQ) developed for college students by Buhrmester, Furman, Wittenberg, and Reis (1988). The ICQ is a 20 item questionnaire testing five competence domains, with four items representing each domain. The RCS, used in the present study, retained this format. Note that items included in the scale were reworded consistent with the AICQ, making the scale more appropriate for the adolescent population. The five domains covered in the RCS are:

- (1) initiating relationships, addressing adolescents' perceived ability to initiate interactions with potential romantic partners (e.g., "how good are you at introducing yourself to a girl you'd like to date?").
- (2) providing emotional support, assesses adolescents' ability to provide comfort to romantic partners when the later are experiencing distress (e.g., how good are you at helping your girlfriend handle pressure or upsetting events?").

- (3) asserting influence measures the extent to which adolescents can honestly express their opinions and dissatisfaction to their romantic partner (e.g., how good are you at getting your girlfriend to agree with your point of view?").
- (4) self-disclosure, taps into adolescents' ability to reveal personal information to the romantic partner (e.g., how good are you at opening up and letting your girlfriend get to know everything about yourself?").
- (5) conflict resolution assesses adolescents' perceived ability to effectively manage relationship conflict (e.g., how good are you at resolving disagreements with your girlfriend in ways that neither of you feels hurt or resentful?").

Participants rated their level of perceived competence on a 5-point rating scale, asking adolescents to indicate how comfortable they feel in each of the presented areas/situations. The ratings ranged from 1 ("poor at this") to 5 ("extremely good at this"). The actual range of the scale mean score was 1.6 to 4.95. Higher scores indicate greater perceived romantic competence.

The original scale exhibited good internal consistency, with the Cronbach alpha's reported for each subscale ranging between .77 to .87, with an average of .83 (Buhrmester et al., 1988). The modified version of the questionnaire, AICQ, also had good internal consistency – between  $\alpha = .72$  and  $\alpha = .82$  for each subscale (Buhrmester, 1990). In the current study internal consistency for the scale was computed, producing a Cronbach alpha coefficient for the total scale score of .93. Past research has also shown acceptable construct and criterion validity of the scale by demonstrating meaningful correlations with other theoretically related constructs (Buhrmester et al., 1988; Buhrmester, 1990).

#### **Results**

#### **Data Screening**

Prior to addressing research questions, descriptive statistics were computed to examine univariate assumptions of normality, outliers and missing data. Two variables with more than 5% missing data, namely, Romantic Competence (8.2% missing) and Romantic Partner Intimacy (17.5%) were identified. Given a fairly small data set, deleting participants with missing data

would constitute a substantial loss of the data (Tabachnik & Fidell, 1983). Following a recommendation of Tabachnik and Fidell (1983) variable means were imputed in place of missing scores for these two variables. This was preferred since it is said to respect the data in its natural state.

Data was also screened for the violations of univariate normality. Two variables showed significant negative skeweness and kurtosis, namely, SS Friendship Intimacy measured in Grade 9 and Romantic Intimacy measured in Grade 11. It was not surprising that the data was negatively skewed, since adolescents were asked to characterise their positive experiences (intimacy) within these two close relationships. It is also likely that the underlying adolescent population from which this sample was drawn would also provide responses on these variables that would not be normally distributed. Nevertheless, data transformations to correct for significant skewness were undertaken. Following Tabachnik and Fidell (1983), scale scores were reflected. Square root transformation of the reflected scores on the SS Friendship Intimacy (Grade 9) corrected for the skewness and kurtosis problem. Log10 transformation of the reflected scores on the Romantic Intimacy (Grade 11) was required to correct for the skewness and kurtosis problem. Descriptive statistics for the variables included in the analysis with the necessary transformations already in place are provided in Table 1. All of the transformed and untransformed variables were screened for univariate outliers by computing z scores of all the mean scores for each participant on each scale. Participants whose mean scores exceeded the value of 3.29 (p<.001, two-tailed test) were identified as potential outliers (Tabachnik & Fidell, 2007). Four problem outliers were identified and deleted.

As the next step, data were screened for multivariate outliers and violations of the multiple regression assumptions. Multivariate outliers were screened using Mahalanobis

Table 1

Descriptive Statistics for the Total Sample

<u>Variables</u>	<u>N</u>	<u>M</u>	<u>SD</u>	Range	Skewness	Kurtosis
SS Relational Authenticity Grade 9 b,e	95	3.43	0.55	2.73	48	.01
OS Relational Authenticity Grade 9 <sup>f</sup>	93	3.43	0.76	3.55	07	31
SS Friendship Intimacy Grade 9 <sup>a</sup>	93	4.89	0.60	2.40	64	18
OS Friendship Intimacy Grade 9	92	4.38	0.71	2.85	.08	67
SS Friendship Intimacy Grade11	90	4.83	0.61	2.55	23	54
OS Friendship Intimacy Grade11	90	4.71	0.68	3.00	30	15
Romantic Competence Grade 11 b	95	3.74	0.58	3.05	33	.33
Romantic Intimacy Grade 11 <sup>c</sup>	95	0.28	0.14	.70	04	.55
Romantic Intimacy Grade 11 b, d	93	5.03	0.60	3.00	80	1.72

*Note*. <sup>a</sup> reflection and square root transformation applied; <sup>b</sup> missing values were imputed with the series mean; <sup>c</sup> reflection and log10 transformation applied; <sup>d</sup> untransformed variable; <sup>e</sup> SS = other-sex; <sup>f</sup> OS = same-sex

distance, and no values greater than then critical  $\chi^2 = 13$ . 816 were identified. Multicollinearity tolerance was examined for all regression analyses and did not fall below the value of .10 in any analysis, indicating no violations of multicollinearity. Examination of the correlation matrixes also did not reveal any violations of the multicollinearity assumption (no correlations above .90; Tabachnik & Fidell, 2007). Visual examination of the normal probability plots (P-P plots) of the residuals revealed that there were no violations of the assumptions for multiple regression.

Regression analyses (reported below) were conducted using both transformed and untransformed data to verify whether the pattern of results was affected by the skewness and kurtosis problems. For ease of interpretation, analyses using untransformed scores are presented whenever the pattern of results did not change after the transformations<sup>5</sup>. An alpha level of .05 was used for this and all other statistical tests presented in this study.

## **Analysis of variance**

A 2 x 2 x 2 mixed model factorial analysis of variance was conducted to examine whether in the current sample there were overall effects of Time (Grade 9, 11), Type of friendship (same-sex or other-sex), or Sex of the participant on adolescents' experiences of friendship intimacy as well as possible interactions between these factors<sup>6</sup>. This analysis revealed that there was a main effect of Time, F(1, 84) = 5.609, p = .02, Type of friendship, F(1, 84) = 12.621, p = .001, and Sex, F(1, 84) = 7.091, p = .009. Specifically, in Grade 11 adolescents' perceived greater friendship intimacy (M = 4.677, SD = .062) than in Grade 9 (M = 4.519, SD = .070). Same-sex friendships were perceived as more intimate (M = 4.719, SD = .064) than othersex friendships (M = 4.477, SD = .069), regardless of the sex of the participant or Grade in which reports were made. Finally, averaging across both grades, girls rated their friendships

(regardless of the sex of their partner) as more intimate (M = 4.749, SD = .056) compared to the ratings given by boys (M = 4.446, SD = .099).

The main effects were qualified by significant interaction of Type x Sex, F(1, 84) = 4.326, p = .041, and Time x Type, F(1, 84) = 14.982, p < .001. These results suggest that perceptions of intimacy in same- and other-sex friendships varied depending on participants' own sex. Adolescents' perceptions of same- and other-sex friendship intimacy also varied depending on the time (either Grade 9 or 11) when these ratings were made.

Follow-up t-tests revealed that there was a significant difference in adolescents' perception of intimacy in same versus other-sex friendships in Grade 9, t (91) = 7.29, p < .001, but no such difference in Grade 11, t (86) = 1.36, p = .177. Specifically, same-sex friendships in Grade 9 were perceived as more intimate (M = 4.879, SD = .602) than other-sex friendships within the same grade (M = 4.375, SD = .608). Furthermore, the perception of intimacy in same-sex friendships did not vary significantly with increasing grade level, t (89) = .882, p = .380, whereas there was a significant difference in adolescents' perception of other-sex friendship intimacy between Grade 9 and 11, t (88) = -3.994, p < .001. Adolescents in this sample perceived more intimacy in their other-sex friendships in Grade 11 (M = 4.703, SD = .675) than in Grade 9 (M = 4.353, SD = .715).

Follow-up t-tests on the Type x Sex interaction showed that there was a significant difference in how intimate girls perceive their same- and other-sex friendships to be, t (64) = 5.552, p < .001, whereas there was no such difference detected in boys' perceptions of their same- and other-sex friendship intimacy, t (20) = .931, p = .363. Adolescent girls perceived their same-sex friendships as significantly more intimate (M = 4.941, SD = .478) than other-sex friendships (M = 4.558, SD = .541). In addition, there was a significant difference in the level of

intimacy girls perceived in their same-sex friendships compared to that perceived by boys, t (88) = -3.207, p = .002, whereas no significant differences were found between girls' and boys' perceptions of intimacy in their other-sex friendships, t (87) = -1.244, p = .217. Adolescent girls' perception of intimacy in same-sex friendship was significantly greater (M = 4.959, SD = .478) than boys' perception of intimacy in the same type of friendship (M = 4.551, SD = .631).

### **Correlations**

Simple correlations between all the variables of interest were calculated for exploratory and descriptive purposes (see Table 2 and Table 3). It should be noted that the Romantic Intimacy (Grade 11) variable was used in its transformed format (reflection and Log10 transformation) for the analysis with the Measure of Relational Authenticity SS and OS, and as such the direction of the scale was reversed such that lower scores on the Romantic Intimacy scale (Grade 11) in Table 2 indicated greater intimacy.

A significant positive correlation was found between adolescents' ratings of their feeling of SS Relational Authenticity (Grade 9) and their subsequent Romantic Competence (Grade 11). These results suggest that the more authentic adolescents felt in their same-sex friendships in Grade 9 the greater they perceived their romantic competence to be in Grade 11. The OS Relational Authenticity in Grade 9 was significantly correlated with both Romantic Competence (Grade 11) and Romantic Intimacy (Grade 11). The results suggests that being relationally authentic with other-sex friends in Grade 9 was associated with adolescents' perceptions of greater romantic competence and romantic intimacy in Grade 11 (see Table 2).

SS Friendship Intimacy in Grade 9 was correlated with adolescents' subsequent Romantic Intimacy (Grade 11), indicating that greater intimacy in earlier same-sex friendships was related

Table 2

The Pearson Correlation Matrix between Relational Authenticity Measures and Criterion Variables

	Romantic Competence	Romantic Intimacy		
Variables	Grade 11	Grade 11 <sup>a</sup>		
	(df = 91  to  93)	(df = 91  to  93)		
SS Relational Authenticity Grade 9 b	.314**	127		
OS Relational Authenticity Grade 9 °	.391**	251*		

*Note*. <sup>a</sup> Romantic Intimacy reflected so that lower scores indicate higher levels of intimacy;  ${}^{b}SS =$  same-sex;  ${}^{c}OS =$  other-sex;  ${}^{*}p < .05 **p < .01$ 

Table 3

The Pearson Correlation Matrix between predictor variables of Friendship Intimacy (Grade 9 and Grade 11) and Romantic Intimacy (Grade 11)

Variables	Romantic Intimacy Grade 11
	(df = 88  to  93)
SS Friendship Intimacy Grade 9	.354**
OS Friendship Intimacy Grade 9	.176
SS Friendship Intimacy Grade 11	.373**
OS Friendship Intimacy Grade 11	.666**

<sup>\*</sup>p <.05 \*\*p < .01

to the perception of greater intimacy in later romantic relationships. Additionally, in Grade 11 both SS and OS Friendship Intimacy were significantly correlated with Romantic Intimacy in Grade 11 (see Table 3). This finding indicates that a greater perception of intimacy with same-and other-sex friends was associated with a greater concurrent experience of intimacy in romantic relationships.

## **Regression Analysis**

Does relational authenticity in grade 9 predict romantic intimacy in grade 11? To explore whether perceptions of relational authenticity in adolescents' other-sex friendships (Grade 9) predicted future romantic intimacy (Grade 11) even when controlling for the contributions made by the perception of authenticity in same-sex friendships (Grade 9), a hierarchal multiple regression was employed. Accordingly, relational authenticity with same-sex friends was entered on the first step followed by relational authenticity with other-sex friends on the next step. For the purposes of this analysis, the Romantic Intimacy (Grade 11) criterion variable was reflected and Log10 transformed to correct for significant skewness (see Data Screening section for discussion)<sup>7</sup>.

Adolescents' perception of SS Relational Authenticity in Grade 9 did not significantly predict their Romantic Intimacy in Grade 11,  $R^2$  = .016, F (1, 91) = 1.526, p = .22, explaining less than 2% of variance (see Table 4). When adolescents' perception of OS Relational Authenticity in Grade 9 was entered in the second step of the regression equation, the proportion of variance accounted for in adolescents' later perception of Romantic Intimacy (Grade 11) by both friendships' increased to  $R^2$  = .063, with F-change (1, 90) = 4.45, p = .038. Thus, there was a significant increase in the  $R^2$  change (increase of 4.6%, F-change (1, 90) = 4.45, p = .038) following the addition of OS Relational Authenticity (Grade 9) pointing to its unique role in

Table 4

Hierarchal Multiple Regression Statistics for Romantic Intimacy <sup>a</sup> (Grade 11) Predicted from Relational Authenticity (Grade 9)

В	SE B	β	Semipartial
			correlations
.383	.086		
031	.025	128	128
.432	.087		
002	.028	007	006
043	.020	247*	215
	.383 031 .432 002	.383 .086 031 .025 .432 .087 002 .028	.383 .086 031 .025128 .432 .087 002 .028007

*Note.* <sup>a</sup> Romantic Intimacy reflected so that lower scores indicate higher levels of intimacy;

 $<sup>^{</sup>b}SS = \text{same-sex}$ ;  $R^{2} = .016$  for step 1;  $\Delta R^{2} = .046$  for step 2, \* p < .05

predicting Romantic Intimacy in Grade 11. As with the zero-order correlations, higher levels of relational authenticity with other-sex friends were linked to greater feelings of romantic intimacy two years later. As seen from the semipartial correlations, OS Relational Authenticity (Grade 9) emerged as the only unique predictor of Romantic Intimacy (Grade 11) compared to SS Relational Authenticity (Grade 9). It alone accounted for 4.6% of variance in Romantic Intimacy (Grade 11), while SS Relational Authenticity (Grade 11) accounted for less than .001% of variance.

Does relational authenticity in grade 9 predict romantic competence in grade 11? Using romantic competence in grade 11 as the criterion variable, the measure of same-sex relational authenticity was, once again, entered by itself on Step 1 followed by the addition of other-sex relational authenticity on the second step. With regard to Romantic Competence in Grade 11, adolescents' perception of the SS Relational Authenticity in Grade 9 significantly predicted Romantic Competence (Grade 11),  $R^2 = .117$ , F(1, 91) = 12.019, p = .001 (see Table 5) when OS Relational Authenticity (Grade 9) was not yet taken into consideration. Adolescents' perception of OS Relational Authenticity (Grade 9), entered in the second step of the regression equation, increased the variance accounted for to  $R^2 = .182$ , F-change (1, 90) = 7.216, p = .009. This comprised an increase of 6.6% in the variance accounted for in Romantic Competence (Grade 11), which was a significant increment in the  $R^2$ , F-change (1, 90) = 7.216, p = .009. As can be seen on Table 5, when adolescents' ratings of OS Relational Authenticity (Grade 9) were added into the equation to predict Romantic Competence in Grade 11 the contribution of SS Relational Authenticity (Grade 9) appeared to be diminished as can be seen from a decreased β weight on Step 2. Examination of the semipartial correlations revealed that when both predictors are taken into consideration. SS Relational Authenticity (Grade 9) accounts for 3% of unique

Table 5

Hierarchal Multiple Regression Statistics for Romantic Competence (Grade 11) Predicted from Relational Authenticity (Grade 9)

Variables	В	SE B	β	Semipartial
				correlations
Step 1				
(Constant)	2.586	.343		
SS Relational Authenticity Grade 9	.343	.099	.342*	.342
Step 2				
(Constant)	2.339	.344		
SS Relational Authenticity Grade 9	.198	.110	.197 <sup>t</sup>	.172
OS Relational Authenticity Grade 9	.216	.081	.294**	.256

*Note.*  $R^2 = .117$  for step 1;  $\Delta R^2 = .066$  for step 2, \*\*p < .01; t < .10

variance in Romantic Competence (Grade 11), whereas OS Relational Authenticity (Grade 9) accounts for 6.6 % of unique variance, emerging as potentially a better longitudinal predictor of adolescents' Romantic Competence.

**Does friendship intimacy in grade 9 predict romantic intimacy in grade 11?** For the purposes of these analyses to address the second longitudinal research question, raw (or untransformed) Friendship Intimacy and Romantic Intimacy scores were used (see Data Screening section for discussion)<sup>8</sup>.

To predict Romantic Intimacy (Grade 11) from adolescents' earlier (Grade 9) perceptions of SS and OS Friendship Intimacy, a hierarchal multiple regression was conducted. Consistent with the strategy employed above to compare the contributions of SS and OS Relational Authenticity, in the present analyses SS Friendship Intimacy (Grade 9) was entered on the first step followed by OS Friendship Intimacy (Grade 9) on Step 2.

Results of the regression showed that SS Friendships Intimacy (Grade 9) entered on the first step accounted for a significant proportion of variance in adolescents' experience of Romantic Intimacy two years later (Grade 11),  $R^2 = .116$ , F-change (1, 90) = 11.840, p = .001. Experiences of OS Friendships Intimacy (Grade 9), entered on the second step in the analysis, did not account for an additional significant proportion of variance in adolescents' later Romantic Intimacy with very small and non-significant change observed in the value of  $R^2$  ( $R^2 = .116$ , F-change = .003, p = .960). Given that there was no increment in variance with the addition of OS Friendship Intimacy, beta weights are not provided. These results suggest that it is adolescents' perception of higher levels of same-sex but not other-sex friendship intimacy in Grade 9 that can be linked to the perception of higher levels of romantic intimacy in Grade 11.

Does friendship intimacy in grade 11 predict romantic intimacy in grade 11? As an additional step in the analysis of the second research question, concurrent contributions of friendship intimacy to romantic intimacy were explored. A parallel multiple regression strategy was employed with SS Friendship Intimacy (Grade 11) entered on Step 1 and OS Friendship Intimacy (Grade 11) added on Step 2 to predict concurrent reports of Romantic Intimacy (See Table 6). When SS Friendships Intimacy (Grade 11) was entered in the first step of the hierarchal multiple regression analysis it made a significant contribution to the prediction of Romantic Intimacy in Grade 11,  $R^2 = .145$ , F-change (1, 85) = 14.409, p < .001. OS Friendship Intimacy (Grade 11), entered on the second step of regression analysis added a significant proportion of variance in the Romantic Intimacy (Grade 11), above what was already accounted for by the SS Friendship Intimacy in Grade 11 with the change in  $R^2 = .319$ , F-change (1, 84) = 50, 096, p < .001. Thus, together, both measures of Friendship Intimacy accounted for 46.4% of the variance in Romantic Intimacy reported in Grade 11. The results of this regression analysis further indicate that within the same year (Grade 11) perceptions of greater intimacy with SS friends predicted greater perceptions of romantic intimacy, uniquely accounting for 3.8% of variance in Romantic Intimacy (Grade 11) in the presence of OS Friendship Intimacy (Grade 11; see Table 5 for the semipartial correlation). Importantly, OS Friendship Intimacy (Grade 11) emerged in the present study as a stronger concurrent predictor of Romantic Intimacy (Grade 11) than SS Friendship Intimacy by uniquely predicting 31.9% of variance in Romantic Intimacy in Grade 11 when the effects of SS Friendship Intimacy were controlled. As with same-sex friendship intimacy, higher levels of intimacy in Grade 11 romantic relationships could be tied to greater intimacy in other-sex friendships.

### **Exploratory Analysis**

Table 6

Hierarchal Multiple Regression Statistics for Romantic Intimacy (Grade 11) Predicted from
Friendship Intimacy in Grade 11

Variables	В	SE B	β	Semipartial
				correlations
Step 1				
(Constant)	3.307	.462		
SS Friendship Intimacy Grade	.361	.095	.381**	.381
11				
Step 2				
(Constant)	1.713	.431		
SS Friendship Intimacy Grade	.193	.079	.203**	.194
11				
OS Friendship Intimacy Grade	.511	.072	.592**	.565
11				

*Note.*  $\Delta R^2 = .319$  for step 2, \*\* p < .01

Of secondary interest in the present study was the pattern of connections between romantic intimacy and various aspects or dimensions of SS and OS friendship intimacy measured in grades 9 and 11. Specifically, the question of interest was whether certain aspects of friendship intimacy might be especially influential in contributing, and possibly shaping aspects of adolescents' romantic intimacy. For the purposes of this analysis the untransformed variables were used.

There were positive significant correlations (see Table 7) between the subscale of Sensitivity and Knowing SS Friendship Intimacy (Grade 9) and Sensitivity and Knowing as well as the Frankness and Spontaneity subscale of Romantic Intimacy (Grade 11). Attachment subscale (Grade 9) was positively correlated with the corresponding subscale on Romantic Intimacy scale in Grade 11. Both subscales, Trust and Loyalty and Frankness and Spontaneity of SS Friendship Intimacy (Grade 9) were significantly associated with Sensitivity and Knowing and Frankness and Spontaneity subscales of Romantic Intimacy (Grade 11). The Common Activities subscale SS Friendship Intimacy (Grade 9) was positively and significantly correlated with all of the dimensions of Romantic Intimacy in Grade 11.

Although overall OS Friendship Intimacy (Grade 9) did not significantly predict Romantic Intimacy in Grade 11 in the regression analyses presented above, exploratory correlations revealed that the Trust and Loyalty subscale of OS Friendship Intimacy (Grade 9) was significantly associated with Sensitivity and Knowing and Trust and Loyalty subscales of Romantic Intimacy (Grade 11). In addition, Frankness and Spontaneity subscales across OS Friendship Intimacy (Grade 9) and Romantic Intimacy (Grade 11) were also significantly associated.

Table 7

The Pearson Correlation Matrix of the Predictor Variables' Subscales Romantic Intimacy

Intimacy	Romantic	Romantic	Romantic	Romantic	Romantic
	SK	A	TL	FS	CA
SS Friendship Intimacy Grade 9					
Sensitivity and knowing	.282**	.159	.161	.236*	.178
Attachment	.167	.209*	.143	.203	.144
Trust and loyalty	.262*	.162	.192	.245*	.199
Frankness and spontaneity	.287**	.093	.183	.380**	.157
Common activities	.370**	.373**	.271**	.468**	.399**
OS Friendship intimacy Grade 9					
Sensitivity and knowing	.179	.001	.136	.131	.140
Attachment	.124	.146	.177	.010	.089
Trust and loyalty	.229*	.048	.245*	.163	.114
Frankness and spontaneity	.138	039	.192	.255*	.098
Common activities	.087	.024	.013	.096	.161
SS Friendship Intimacy Grade 11					
Sensitivity and knowing	.402**	.357**	.232*	.298**	.273**
Attachment	.135	.273**	.061	.073	.123
Trust and loyalty	.301**	.175	.246*	.334**	.238*
Frankness and spontaneity	.258*	.134	.188	.553**	.365**
Common activities	.246*	.304**	.173	.301**	.356**

OS Friendship intimacy Grade 11					
Sensitivity and knowing	.648**	.346**	.429**	.497**	.423**
Attachment	.443**	.592**	.493**	.336**	.347**
Trust and loyalty	.404**	.412 **	.565**	.342**	.422**
Frankness and spontaneity	.569**	.349**	.478**	.624**	.357**
Common activities	.522**	.381**	.418**	.524**	.467**

<sup>\*</sup>p < .05, \*\* p < .01

The SS Friendship Intimacy (Grade 11) subscale of Trust and Loyalty was significantly positively associated with all of the Romantic Intimacy subscales with the exception of the Attachment subscale. The Sensitivity and Knowing subscale (SS Friendship Intimacy – Grade 11) was significantly and positively correlated with all of the Romantic Intimacy subscales (Grade 11) with no exceptions. The Attachment subscale of the SS Friendship Intimacy scale (Grade 11) was significantly associated only with the Attachment subscale of Romantic Intimacy (Grade 11). The Frankness and Spontaneity subscale of SS Friendship Intimacy (Grade 11) was significantly related to the Sensitivity and Knowing, Frankness and Spontaneity, and Common Activities subscales of Romantic Intimacy (Grade 11). The Common Activities subscale for SS Friendship Intimacy was positively correlated with all of the Romantic Intimacy (Grade 11) subscales, except for Trust and Loyalty. Finally, significant positive correlations were found between all of the subscales of Romantic Intimacy (Grade 11) and all of the dimensions of OS Friendship Intimacy in Grade 11.

Taken together, all of the aspects of other-sex friendship intimacy in Grade 11 and nearly all of the aspects of same-sex friendship intimacy in Grade 9 and 11 are significantly and positively associated with various dimensions of future (Grade 11) romantic intimacy in adolescence.

#### **Discussion**

Consistent with the behavioural systems theory (Furman & Wehner, 1994; 1997), the present findings demonstrated that experiences within different types of friendships are likely to make distinct contributions to adolescents' relational views and views of self in specific relationships. In the following section, I provide a discussion of the findings of the current study. I begin by addressing the present findings on adolescents' friendship intimacy which help to

characterize the present sample in relation to other samples used in earlier related inquiries. Then, I review the pattern of links between adolescents' perception of relational authenticity in the context of earlier same- and other-sex friendships and adolescents' later heterosexual romantic competence. These points are followed by a discussion of the discovered relationship between relationship authenticity in earlier friendships and later romantic intimacy. Next, concurrent associations between intimacy in adolescents' friendship and heterosexual romantic relationships are reviewed. Unique longitudinal contributions of same- and other-sex friendship intimacy to later romantic intimacy are discussed. Following is a brief discussion of the exploratory analysis. Finally, an overview of study's limitations and future directions precedes the summary of the current research.

Although other-sex friendship intimacy in Grade 9 was not predictive of adolescents' future (Grade 11) romantic intimacy, the rest of the current research findings confirm the unique contribution of adolescents' experiences in platonic other-sex friendships toward their heterosexual romantic involvements. Moreover, these contributions remain significant even after accounting for the role of same-sex friendships in shaping adolescents' perceptions of intimacy and competence in future and concurrent romantic relationships. This demonstrates that despite their shared characteristics, same- and other-sex friendships do not serve identical functions when contributing to adolescents' romantic skills and capacities. Thus theoretical propositions put forth by developmental researchers (e.g., Sippola, 1999; Furman & Wehner, 1994), which suggest that other-sex platonic friendships may serve an important and unique role in the development and experience of romances during adolescence are supported.

At the onset it is important to note that in their reports of friendship intimacy the present sample shows the same characteristics as those found in previous research. Specifically, it has

been previously observed that girls' same-sex friendships are more intimate than boys' friendships (Crothers, Field, & Kolbert, 2005; Hartup, 1993; Lansford & Parker, 1999; Lempers & Clark-Lempers, 1993;), that the experience of intimacy tends to grow with age and adolescents' experience with types of friendships (e.g., McNelles & Connolly, 1999; Sharabany et al., 1981), and that the difference between same- and other-sex friendships decreases with time (e.g., Sharabany et al., 1981). These findings were replicated in the present study. Participants in this study felt similarly intimate with their same- and other-sex friends in Grade 11 which was not the case in Grade 9. Consistent with a previous finding that boys do not significantly differentiate between same- and other-sex friendships (McDougall & Hymel, 2007), in the current study boys did not feel that intimacy with same- and other-sex friends was a significantly different experience. Given that the present findings on adolescents' perceptions of intimacy in their friendships are in line with existing knowledge, the sample appears to be typical (rather than atypical) in the pattern of self-reported friendship experiences. Furthermore, the current research findings are likely generalizable to a larger population of adolescents with whom the current sample shares common relationship features.

# **Relational Authenticity and Heterosexual Romantic Competence**

Two important contributors to adolescents' perception of competence in subsequent (Grade 11) heterosexual romantic relationships, namely adolescents' perception of relational authenticity in earlier same- and other-sex friendships (Grade 9), were found in the current study. Moreover, although authenticity in the friendship context in general is an important predictor of adolescents' future romantic competence, unique importance may be attributed to adolescents' experiences with close other-sex friends as seen from the findings in the present study. The findings show that adolescent perceptions of relational authenticity within same-sex friendships

do contribute to their future romantic competence. However once contributions of adolescents' experience of relational authenticity with their close other-sex friends is taken into consideration, same-sex friendship experience does not emerge as a unique predictor. It seems, then, that there is something of unique importance in adolescents' perception of how relationally authentic they feel they can be with the close friends of the other sex. According to the present findings, the earlier knowledge and experience of relational authenticity with the close other-sex friends appears to transfer to adolescents' comfort and confidence in expressing themselves in the heterosexual romantic context. Although not measured directly here, on the basis of the presentt findings with self-report data, it seems that adolescents' other-sex friendships may provide a context in which youths practice how to assert themselves, how to resolve conflict and to self-disclose appropriately in close relationships with the other sex. , A finding that provides further support to the behavioural systems theory (Furman and Wehner, 1994; 1997), skills acquired and practiced with close other-sex friends appear to translate to adolescents' romantic relationships.

To explain the current findings, it is useful to look at the characteristics of other-sex friendships that are not shared by adolescent close same-sex friendships. It is likely that unique experiences within other-sex friendships determine the differential pattern of influences that same-and other-sex friends have on adolescents' heterosexual romantic perceptions of self and their partners. Specifically, within other-sex friendships issues of sexuality and attraction may arise which, typically, do not characterise heterosexual same-sex friendships (Hand & Furman, 2009; Furman & Wehner, 1997; Koenig, Kirkpatrick, Ketelaar, 2007; McDougall & Hymel, 2007; Shaffer, 2002). Thus, taking into account previous research findings, other-sex friendships may carry a new form of relational ambiguity, namely, whether the relationship is strictly platonic or entails romantic or sexual undertones (e.g., Furman & Wehner, 1997). Amidst these

new challenges, being nice and maintaining other-sex friends' ego are emphasized as important characteristics of other-sex friendships (McDougall & Hymel, 2007). Consequently, maintaining the overall relationship positivity in other-sex friendships is judged as being highly important which, in turn, may lead to a particular reluctance (Furhrman, Flannagan, & Matamoros, 2009) or fear to express one's own thoughts and feelings (e.g., Way, 1995). This reluctance can be viewed as a suppression of one's own voice. Reportedly, the ability to feel relationally authentic in relationships with the other-sex is more difficult to master than it is in heterosexual same-sex unions (e.g., Harter, Waters, Whitesell, and Kastelic, 1998; Way, 1995). The present findings are then consistent with the previous literature reports.

Further, in keeping with previous research, the present findings support the notion that the more unfamiliar context of other-sex friendships (compared to same-sex friendships) may force adolescents to define new aspects of their self in this relational setting and to learn to feel comfortable (authentic) with the close peers of the other sex. In adolescence the context of other-sex friendships may provide youths with their first validations as attractive opposite sex others (Monsour, 2002). Being attractive to the other sex usually goes along with being popular among opposite-sex peers (Bukowski et al., 1993; Dijkstra et al, 2009), and, as a result, is likely to be associated with feelings of being accepted and liked. Translating into their future ability to feel competent in romantic contexts, these experiences may foster the development of adolescents' true-self behaviour in the context of close relationships with the other-sex and the expression of their true self. Altogether, since close other-sex friendships present one of the first opportunities where adolescents' may practice this relational skill with members of the opposite sex and which apparently provide a considerably different experience than same-sex friendships, the former

may serve as a better template for the development of adolescents' competence in relationships involving close opposite-sex partners.

#### **Relational Authenticity and Heterosexual Romantic Intimacy**

The present research findings revealed that adolescents' relational authenticity in close other-sex friendships, but not in same-sex friendships, predicted future romantic intimacy. Such findings suggest that being authentic with the other-sex friends may be perceived by adolescents as a different experience or as a process that has a different meaning compared to that which is involved in same-sex friendships. Existing research, for example, shows that boys are more likely to self-disclose and behave in more authentic ways in relationships with female partners (Reisman, 1990; Tolman, Spenser, Harmon, Rosen-Reynoso, & Striepe, 2004), arguably fostering the development of boys' capacity for intimacy with girls. This developed ability to be intimate with the opposite sex friend may translate into a capacity for intimacy in adolescents' subsequent heterosexual romantic relationships. Girls, on the contrary, feel less comfortable interacting with their best other-sex friends (McBride and Field, 1997), are more likely to try to adopt behaviour of the opposite-sex partners (Connolly, Loyald, Pepler, & Craig, 2009), and, arguably, may find it more difficult to show their true self in relationship with the other sex (Gilligan, 1982). Perhaps having a chance to learn how to assert one's true self in a new relational context (other-sex friendship) allows girls to learn how to remain authentic in close relationships with boys. This experience, in turn, may promote girls' capacity for future intimacy in romantic relationships. Altogether, it is likely that, for both boys' and girls,' unique experiences in other-sex friendships may foster the development of skills and abilities untapped in their same-sex friendships. The present findings do demonstrate that the ability to be relationally authentic within other-sex friendships, unlike same-sex friendships, endows young

people with a distinct set of skills which contribute to adolescents' capacity for future romantic intimacy. It remains to be seen whether there is a different pattern in these experiences depending on the adolescents' gender.

It is noteworthy that, in Grade 11, relational authenticity experienced in same- and other-sex friendships demonstrated a distinct pattern of association to romantic intimacy and competence. Specifically, although earlier same-sex relational authenticity (Grade 9) did predict future romantic competence (Grade 11), it did not do so in case of adolescents' later romantic intimacy. This finding suggests that despite their apparent interconnectedness, romantic intimacy and romantic competence are in fact distinct constructs. Further, processes/skills involved in romantic competence and intimacy are apparently not identical and may not be shaped by the same preceding life experiences.

# Friendship and Heterosexual Romantic Intimacy: Concurrent Predictions

The present findings suggest that adolescents' experiences of intimacy in same- and other-sex friendships in Grade 11 both have unique links to intimacy experiences within heterosexual romantic unions in Grade 11. It has also been observed that the experience of intimacy in both same- and other-sex friendships shared a certain amount of variability in what they predicted in concurrent romantic intimacy. This finding lends further support to the notion that skills, capacities and perceptions developed in same-sex friendships are likely to contribute to adolescents' skills in friendships with the other-sex. In turn, both then contribute to the development of intimacy in concurrent heterosexual romantic relationships. Intimacy in other-sex friendships was a unique contributor to romantic intimacy within the same year, even after controlling for the contributions of same-sex friendship intimacy. Although the reverse was also true, intimacy in other-sex friendships appeared to better predict romantic intimacy than did

intimacy in same-sex friendships. Perhaps the fact of adolescents' involvement with the other sex, as a common feature of both romantic relationships and other-sex friendships, may help explain greater similarity in intimacy experiences within these relationships as opposed to same-sex friendships.

It appears that skills and knowledge acquired in close other-sex friendships may allow adolescents to approach their heterosexual romances with a better understanding of what to expect from close opposite-sex others which, arguably, also helps youths to decide what they can give/do in such relationships to promote greater intimacy. Consistently, previous research (e.g., Feiring, 1999) showed that adolescents with greater experience in other-sex friendships and larger other-sex networks differ from youths without such experiences in the way they conceptualize their future romances. According to the present findings, it seems likely that by learning something specific about intimacy with the other sex through friendships, adolescents then use this knowledge in regards to various dimensions of intimacy within their heterosexual romantic relationships. Consequently, intimacy experiences in other-sex friendships may contribute in ways different from experiences in same-sex friendships to the shaping of adolescents' perceptions of intimacy in their heterosexual romantic relationships, at least concurrently.

Furthermore, adolescents seem to emphasise different things in their same- and other- sex friendships (McDougall & Hymel, 2007). This tendency may extend to youths experience of intimacy in these close friendships. Also, although adolescents' perception of intimacy in both same- and other-sex friends tends to increase with age (Sharabany et al., 1981), for most, intimacy feelings never become equivalent across these friendships (e.g., Lempers & Clark-Lempers, 1993). Thus, friendship characteristics, as well as adolescents' feelings about their

friendships appear to depend on their friend's gender. Consistent with this previous research, the findings in the present study seem to suggest that adolescents draw to a different extent on different aspects of same- and other-sex friendship intimacy when shaping their perceptions of their current romantic intimacy.

### Friendship and Heterosexual Romantic Intimacy: Longitudinal Predictions

Consistent with previous reports in the literature (e.g., Seiffge-Krenke, 2000), in this study same-sex friendship intimacy in Grade 9 predicted adolescents' future romantic intimacy in Grade 11. This finding replicates earlier findings and expands on others (e.g., Connolly et al., 2000; Shulman and Scharf, 2000). Seiffge-Krenke (2000) for example, reported that intimacy in adolescents' same-sex friendships related strongly to intimacy in romantic relationships in a subsequent year. Further, Shulman and Scharf (2000) found that the quality of the same-sex friendship could explain affective intensity in the romantic relationship. On the basis of such findings it has been suggested that relationships with same-sex friends may serve as "testing grounds" for the experiences of emotions in other close relationships (Collins & Van Dulmen, 2006). Thisa proposition finds confirmation in this study.

Interestingly, other-sex friendship intimacy in Grade 9 was not a predictor of romantic intimacy in Grade 11. This finding simultaneously corresponds to and contradicts the few existing research reports (e.g., Buchanan, 2001; Feiring, 1999). In Buchanan's (2001) study the number of other-sex friends did not predict adolescents' future (one year later) romantic competence, whereas in Feiring's (1999) research the size of adolescents' other-sex networks was related to the emergence, maintenance and quality of mid- and late – adolescence romances. Note, however, that unlike the present study these studies looked at the number of other-sex

friends as a factor contributing to or predicting the quality of subsequent adolescent romantic relationships.

Possible cultural differences between the participants in the previous and the present studies could contribute to the emerging contradictions. Participants in the present study as well as in Buchanan's study (both studies were part of the same larger project) came from the same midsized city in the Canadian prairies while Feiring recruited her participants from the suburban communities of a large Mid-Atlantic American state. The different geographic, historic and current circumstances of the two regions may contribute to the difference in adolescents' peer cultures where youths' understanding and experience of close peer relationships is developed and shaped. According to Corsaro and Eder (1990), in adolescence, through interactions with friendship groups, "youth develop their own interpretations of significant meanings while they produce humorous and other playful routines which become central to their microcultures" (p. 207). Although in the process of producing their first peer cultures, children and youths adapt available knowledge, they base it on the information obtained from the adult world (Corsaro & Eder, 1990) which boasts diversity in cultural meanings (Keesing, 1974). Although contributions of the cultural differences to the present pattern of findings would have to be supported empirically, the possibility certainly cannot be ruled out now.

The lack of longitudinal association between other-sex friendships' intimacy and romantic intimacy could also be attributed to the changes in adolescents' understanding and experience of intimacy over time found in past research (McDougall & Hymel, 2007; McNelles & Connolly, 1999; Seiffge-Krenke, 2000; Sharabany et al., 1981). Indeed, complex developmental shifts and transitions that occur during adolescence are held "responsible" for the malleability of adolescents' relationship views (Furman & Simon, 1999). Adolescents' gradually

acquired ability for abstract thought, greater capacity for perspective taking, more complex reasoning skills and information processing abilities all permit young people, unlike children, to engage in the re-evaluation and reshaping of their earlier acquired relationship views(Furman & Simon, 1999).

Since in Grade 9 other-sex friendships are likely to present a newer and relatively unexplored terrain of relationships compared to same-sex friendships, the way that youths conceive of these unions and how they experience closeness with new opposite-sex friends is expected to change with time and experience (e.g., Sharabany et al., 1981). Supporting this proposition is the present finding that perception of intimacy in other-sex friendships did undergo a substantial shift from Grade 9 to Grade 11 showing increase with age. Perhaps at the earlier stages of friendships with the other-sex, adolescents were more prone to compare and evaluate these relationships against same-sex friendships. Whereas later, a better formed conception of other-sex friendships likely emerged and so did the criteria for evaluating their experiences and expectations in these relationships. Previous research indeed shows that with age adolescents' expectations of same- and other-sex friends tend to diverge (McDougall & Hymel, 2007). In the present study, over time adolescents may have learned how to accommodate interests of the other-sex friends and discovered new pathways to closeness, all of which promoted greater intimacy in Grade 11 other-sex friendships. As such, when adolescents drew on their experiences of intimacy with other-sex friends, later relationships with the opposite sex may have provided a closer fit with adolescents' needs in their Grade 11 heterosexual romances.

### **Exploration of Intercorrelations of Intimacy Dimensions**

Most of the corresponding dimensions of friendship and romantic intimacy variables were highly or moderately interrelated. This is not surprising, since it was argued (Sharabany,

1994; Sharabany et al., 1981) that the same dimensions of intimacy comprise an overall construct in adolescents' same- and other-sex friendships as well as their romantic relationships. Of greater interest are interrelations among different (non-corresponding) dimensions of intimacy in adolescents' heterosexual romantic relationships and their earlier and current other- and same-sex friendships. Specifically, it appears that whatever adolescents' learn through their common activities with same-sex friends in Grade 9 and other-sex friends in Grade 11 contributes to each dimension of their romantic intimacy in Grade 11. Through this pattern of associations, the Common Activities dimension emerges as a crucial element contributing to romantic intimacy. As previously mentioned, it may be suggested that it is boys' need for common activities as a pathway to intimacy (Camarena et al., 1990) that drives both sexes' reliance on this dimension in the development of each aspect of romantic intimacy.

Further, as seen from the association between these intimacy dimensions, the ability to trust their other-sex friends in Grade 9 and to be trusted contributes to adolescents' subsequent perception of being sensitive to and knowing their romantic partner. This relationship suggests that learning to be supportive and committed to their other-sex friends and to develop and maintain mutual trust in earlier other-sex friendships is essential to adolescents' subsequent ability to understand and develop a level of sensitivity to their romantic partners.

Another interesting observation is that attachment to same-sex friends, both in Grade 9 and 11, is associated only with the perception of attachment to a romantic partner. Meanwhile, perception of attachment developed towards other-sex friends in Grade 11 relates to every aspect of romantic intimacy. It is possible that attachment which is an apparently identical component of friendship intimacy has different meaning depending on the sex of adolescents' friends. The

possible difference in the meaning of friendship attachment may contribute to the different links between this friendship intimacy dimension and romantic intimacy.

The present findings suggest then, that not every seemingly identical component of friendship intimacy is experienced the same way across adolescents' close same- and other-sex friendships thereby producing differential associations with the dimensions of romantic intimacy. Although, due to a high probability of Type 1 error, the current interpretations should be made with caution, the reviewed associations suggest the need for a deeper exploration of the links between the elements of same- and other-sex friendships and heterosexual romantic relationships using a sample of a larger size.

## Limitations

One of the possible drawbacks in the present study may be the blending of adolescents with other-sex friends in Grade 9 together with those who identified their Grade 9 opposite-sex friends as romantic partners. Recognising the importance of differentiating, even in this earlier period of adolescence, between romantic partners and close other-sex friends (e.g., see Connolly et al., 1999; Sippola, 1999), the Grade 9 participants were asked to specify whether their close other-sex friend is "just a friend" or a "romantic partner". Out of the 97 participants selected into the final sample, only 20 adolescents indicated that their close other-sex friend was actually their romantic partner. Exclusion of nearly 21% of participants from the current analysis would result in a substantial loss of the data. Due to the small number of "romantic friendships" in Grade 9 no comparisons were made between these relationships and adolescents' Grade 9 platonic friendships. The small size of this "romantic friendship" subgroup also did not allow for meaningful comparisons between the two types of Grade 9 friendships and Grade 11 romantic relationships and other-sex friendships. Therefore, both types of relationships were collapsed

into one category of "close other-sex friendship" and included in the analysis. As a result, some caution is needed when considering the present findings.

It is possible that adolescents' perception of intimacy towards heterosexual romantic partners is different from that experienced by adolescents' whose other-sex relationship is a platonic friendship. This difference, may, in turn, affect the nature of the associations between adolescents' perceptions of the Grade 9 other-sex relationships and their subsequent perceptions of romantic intimacy in Grade 11. Also, earlier experience with romantic relationships may have unique effects on adolescents' later romantic skills and capacities, compared to those adolescents' who at this time acquire experience with the other sex only through platonic friendships. Indeed, research shows that earlier romantic relationships may be important contributors to adolescents' subsequent romantic experiences (e.g., Connolly et al., 2000). Thus earlier heterosexual relationships present a different factor from friendship contributions.

Another limitation worth noting is that upon imposing all of the selection criteria, the final sample included a maximum of only 22 boys and 71 girls<sup>9</sup>. It would be highly interesting and informative in answering the present research questions to examine possible sex differences in adolescents' experiences and relationship interconnections. Examining sex differences was impossible with the present sample.

Finally, it is important to note a limitation related to the measures used in the study. As has been previously mentioned (see the Measures section), the SS Measure of Relational Authenticity had a low internal reliability coefficient and as a result was shortened by dropping the problem items. Both the problem and the solution to it may have lead to the attenuation of the associations found between the variables. Since the Common Activities subscales had lower internal reliability coefficients compared to other subscales of these measures, a similar problem

could have been encountered in the analysis using Friendship Intimacy Scale (both SS and OS).

As a result, a certain amount of caution should be exercised when interpreting the results obtained through the use of the discussed measures.

### **Future Directions**

Future studies should make a strong effort to differentiate between adolescents' other-sex friendships that are *just* friendships and romantic relationships where an other-sex partner is also one's best other-sex friend. Researchers should examine if, based on the actual role of partners in adolescents' earlier close other-sex relationships, platonic friendships and "romantic friendships" form distinct associations with adolescents' future heterosexual romantic unions. Future research should also clarify if there are differences in the nature of adolescents' experiences within their earlier (in this study Grade 9) platonic friendships and "romantic friendships". Indeed, we cannot dismiss the possibility that during the developmental period of middle adolescence (where Grade 9 should fit well) it may be just the label ("friend" or "boy-girl-friend") that differentiates platonic friendships and "romantic friendships".

To examine the same relationship interconnections in adolescents' perceptions of relational authenticity and romantic competence and intimacy as well as between friendship intimacy and romantic intimacy, future studies should also use larger samples of adolescents, with, preferably, similar numbers of female and male participants. Since boys and girls may differ in the way they conceptualize and experience intimacy within other-sex friendships and romantic relationships, this equivalency would permit for the replication of the current research findings as well as for the across gender comparisons. Indeed, previous research (e.g., McDougall & Hymel, 2007) found that girls compared to boys emphasised intimacy, loyalty and commitment as being more important in both same- and other-sex friendships. This difference

may extend to adolescent romantic relationships and thereby to the interconnections between these close relationships. Also, suggesting potentially distinct links with adolescents' subsequent romances, the meaning of relational authenticity may differ for boys and girls in same- and other-sex friendships. Expanding on our knowledge of significant developmental interconnections between adolescents' close friendships and romantic relationships, these possibilities would need to be further explored in the future studies.

### **Summary**

Arguably, understanding what contributions other-sex friendships make to the normative development of heterosexual romantic relationships precedes our ability to identify and assist those adolescents whose friendship experiences may put them at risk for developing unhealthy heterosexual romantic relationships and maladaptive patterns of relating with intimate partners. Specifically, it is essential to understand the link between some aspects of relationship quality of adolescent platonic and romantic heterosexual relationships in order to understand friendship contributions to the development of healthy romantic relationships. Ultimately, consistent with past research, indicating the importance of other-sex friendships for romantic relationships (e.g. Buchanan, 2001; Darling, Dowdy, Horn, & Caldwell, 1999; Feiring, 1999; Kehoe, 2000), the current findings extend this knowledge in the domain of intimacy and romantic competence.

In addition, extending the literature, the current study examined longitudinal links between specific elements of adolescents' other-sex friendships and heterosexual romantic unions. Longitudinal inquiry enriched our understanding of the developmental patterns and pathways in adolescents' heterosexual romantic intimacy and romantic competence, by permitting the discovery of the temporal interconnections of the experiences of friendship authenticity and intimacy with romantic intimacy and competence. Notably, exploring

longitudinal associations between adolescents' other-sex friendships or networks, other studies focused on the presence or absence of such relationships linking that presence or absence to the various aspects of adolescents' romances (e.g., Buchanan, 2000; Feiring, 1996; 1999). By examining the contributions of specific experiences within other-sex friendships to adolescent future heterosexual romantic functioning, I was able to expand the acknowledgement that having other-sex friends/networks may make a difference in adolescent heterosexual romantic development. The current findings contribute to the understanding of the importance of the nature of experiences within other-sex friendships and their unique effects on adolescent development in other close interpersonal contexts, such as heterosexual romantic unions.

Further, the analysis of concurrent associations allowed me to draw conclusions about the immediate transferences of capacities and experiences across adolescents' close relationships, thereby extending our knowledge about the continuous interactions among adolescents' close unions. Altogether, the current study broadens our understanding of the developmental significance of adolescent other-sex platonic friendships and reaffirms existing knowledge of the importance of adolescent same-sex friendships in contributing to the development of adolescent views and experiences in heterosexual romantic relationships.

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#### Footnotes

<sup>1</sup> According to the 2007 publication by Sippola et al., for which the data was drawn from the same larger longitudinal data pool as the one used in the current project, adolescents were instructed to report about their current romantic relationship or one they had within the same year (i.e., in Grade 11). Since the current research question inquires about both friendships and romantic relationships that would have existed within the same year, the word concurrent is used.

<sup>2</sup> This necessitated boys' items to be renamed prior to the analysis to match the item order that was presented to girls. Such renaming allowed for the analysis of responses of the entire sample without subdividing it by sex of the respondents. The necessary items were also reverse coded.

<sup>3</sup> The Divided Self subscale was reverse coded in such a manner, so as to yield a "True Self" score.

Originally, higher scores on the Divided Self subscale indicated lower relational authenticity, with the reverse coding in place, higher scores on this subscale contributed to a higher rating of adolescents' relational authenticity.

<sup>4</sup> Internal reliabilities for this scale and its subscales were calculated before the missing values were replaced.

<sup>5</sup> If the same results of regression analyses remain significant with and without transformation then analyses using untransformed or "raw" variables are reported.

<sup>6</sup> Friendship Intimacy was the only variable that was measured both in Grade 9 and Grade 11, which allowed for the comparison of adolescents' experiences of same- and other-sex friendship intimacy across time and within the same grade.

<sup>7</sup>The pattern of results changed when Log10 transformed Romantic Intimacy (Grade 11) was regressed on SS and OS Relational Authenticity (Grade 9) compared to the pattern of results with untransformed Romantic Intimacy (Grade 11). Therefore the decision was made to use the Romantic Intimacy (Grade 11) variable in its transformed state, since uncorrected skewness appeared to alter the results of the analysis.

<sup>8</sup> The pattern of results of the regression analyses predicting Romantic Intimacy (Grade 11) from SS and OS Friendship Intimacy (Grade 9 and 11) did not change as a result of the transformations. Therefore analysis with raw scores is presented.

<sup>&</sup>lt;sup>9</sup> Different number of participants used in the analysis is a result of utilizing two different forms of variables (transformed and untransformed), which affected the number of outliers identified and deleted.

# Appendix A

Ethics Approval Form

#### **Ethics Approval Form**



# UNIVERSITY ADVISORY COMMITTEE ON ETHICS IN BEHAVIOURAL SCIENCE RESEARCH

NAME:

L.K. Sippola

Department of Psychology

BSC#: 1999-98

DATE:

May 26, 1999

The University Advisory Committee on Ethics in Behavioural Science Research has reviewed the Application for Ethics Approval for your study "Beyond Romeo & Juliet: Other-sex relationships in late childhood and early adolescence" (99-98).

- 1. Your study has been APPROVED.
- 2. Any significant changes to your proposed study should be reported to the Chair for Committee consideration in advance of its implementation.
- 3. The term of this approval is for 3 years.
- 4. I wish you a successful and informative study.

Daryl Lindsay/Chair University Advisory Committee on Ethics in Behavioural Science Research

DL/bjk

Vice-President (Research), University of Saskatchewan Kirk Hall Room 217, 117 Science Place, Saskatoon SK S7N 5C8 CANADA Telephone: (306) 966-8514 Facsimile: (306) 966-8736

# Appendix B

Student Consent Form

#### Student Consent Form

Professor Sippola has described the purpose and procedures of the research project that she is conducting at my high school. I understand that if I agree to participate in this study, I will be asked to complete a questionnaire about my friendships at school, how I feel about my relationships with my friends and classmates, how I perceive myself in these relationships, how I generally feel about myself, and about how good I think I am at doing things in school. I understand that I will complete this survey during a regular class period with my teacher and Dr. Sippola or her assistants present. I also understand that this is a longitudinal study which means that I will be asked to complete this survey twice a year for two years. I understand that my responses to these questions will be kept confidential. That is, no one other than Dr. Sippola and her assistants will have access to my answers on these questionnaires. I also realize that there will be no direct benefits to me as a result of my participation in this study. Dr. Sippola has told me that there are no risks except those that children already encounter in daily life. I know that participation is voluntary and that even if I agree to take part in the study, I can stop participating at any time without negative consequences. I understand that no identifying information about me will be given in the results of this research. Dr. Sippola has agreed to send a letter to my teacher describing the results of the study within six months of completion and that I can ask my teacher to see the letter or to read the results to the class. I also know that I may call Professor Sippola (966-5598) to ask questions about this study before, during, or after the study is completed. Alternatively, I may write to her at: Dept. of Psychology, University of Saskatchewan, 9 Campus Drive, Saskatoon, Sask, S7L 5A5,

Please ch	eck one of the following:	
	I agree to participate	
	I do not wish to participate.	
Please sig	n your name here:	
		Date:
Please pri	nt your name here:	
Lorrie K.	Sippola, Ph.D.	

Lorrie K. Sippola, Ph.D. Assistant Professor Department of Psychology University of Saskatchewan

# Appendix C

Parent Consent Form

#### Parent Consent Form

PARENTS: Please read the following statement and sign below

Professor Sippola has described the purpose and procedures of the research project that she is conducting with the students at my child's high school. I understand that my child will complete a survey about their relationships with their friends and classmates, about their perceptions of their interactions with mothers and fathers, and about how they feel in general. The survey will be completed during a regular class period with his/her teacher and Dr. Sippola or her assistants present. I also understand that this is a longitudinal study which means that my son/ daughter will be asked to complete this survey twice a year for two years. I understand that my son's/daughter's responses to these questions will be kept confidential. That is, no one other than Dr. Sippola and her assistants will have access to these questionnaires. I also realize that there will be no direct benefits to my son/daughter as a result of his/her participation in this study. Dr. Sippola has told me that there are no risks except those that children already encounter in their daily lives. I know that participation is voluntary and that even if my son/daughter begins to take part in the study, he or she can stop participating at any time without negative consequences. I understand that no identifying information about my son/daughter will be given in the results of this research. I also know that I may call Professor Sippola (966-5598) to ask questions about this study before, during, or after the study is completed. Alternatively, I may write to her at: Dept. of Psychology, University of Saskatchewan, 9 Campus Drive, Saskatoon, Sask. S7L 5A5.

Please check one of the following:		
I give my child permission to participate I do not give my child permission to participate.		
My child's name is:	(Plea	se Print)
Please sign your name here:	Date: _	
I would like to receive a report with the findings from this studyYour phone number and address (to receive the final report):	Yes	No
(Street address, P.O. Box, RR#, etc.		
(City)		
(Phone Number)		
Dr. Lorrie K. Sippola, Assistant Professor, University of Saskatchewan		

# Appendix D

Study Description Form

#### Study Description Form



April 15, 1999

Dear Parents:

I am a professor at the University of Saskatchewan where I teach courses and do research on human development. I am writing to tell you about a study that we would like to conduct with the students at your child's school and to request your permission for your son/daughter's participation in this project.

In this study, I am interested in understanding how relationships change over time and how these changes are related to the way that students think about themselves and about others. In particular, I am interested in studying changes in relationships with parents and peers at three different important transformation periods: (a) as students prepare to make the transition to high school, (b) as they make the transition to high school, and (c) as they prepare to leave high school. To study these changes, students from grades 7, 8, 9, 10, and 11 will be asked to participate in a longitudinal study. This means that students who agree to participate in this study would be asked to complete a survey twice a year for at least two years. The types of questions that are asked on this survey include questions about their friends at school and how they feel about their relationships with their friends and classmates. We will also ask them some questions about how they perceive themselves in these relationships, how they generally feel about themselves, and how good they think they are at doing things at school. Students who agree to participate and who receive parental permission to participate will complete these questionnaires twice a year - once in the fall and again in the spring - for two years. The survey will take approximately one hour to complete and will be done at their desks during a regularly scheduled class period.

We would like to assure you that responses to the questionnaires are kept confidential. This means that no individual responses will be reported in the results of the study and no one, except for myself and my assistants will know how any particular student has answered the questions. If you would like to have a copy of our final report, please indicate this on the consent form. We will forward the report within six months of completion of the study.

You should know that your child is not required to take part in this study. In fact, even if you give your child permission to participate now, you may change your mind at any time. Furthermore, if your child decides that he/she does not wish to participate even though you gave permission, he or she does not have to. If she/he does agree to participate, she/he can withdraw from the study at any time without negative consequences.

Parents usually wonder about the risks and individual benefits related to participating in research projects such as this. This study poses no risks, other than the risks that are part of our normal daily lives, and there are no direct benefits to the students who participate. The results of this study will help psychologists like myself and educators understand adolescents' experiences as they make the transition into high school and as they prepare to leave high school. We have found in previous studies that students enjoy participating in this type of study. As I stated earlier, the information collected in this study will be kept confidential, and participation is, of course, entirely voluntary.

If you have any questions about this study, please call me at 966-5598. You may also reach me by letter at: Department of Psychology, University of Saskatchewan, 9 Campus Drive, Saskatoon, Sask. S7N 5A5. Please fill out one of the enclosed consent forms and mail it back to me in the self-addressed, stamped envelope as soon as possible. Please keep the other consent form for your records. Thank-you for your help.

Sincerely,

Lorrie K. Sippola, Ph.D. Assistant Professor

### Appendix E

### Measure of Relational Authenticity

(The following questionnaire is a version asking adolescents about their friendship with male friends. When adolescents' were asked about their female friends the wording was changed accordingly)

### Measure of Relational Authenticity

	Strongly Disagree		2	4	Stron Agre
When my male friends' opinions conflict with	1	2	3	4	3
mine I think it is just better to agree rather than risk losing the relationship.					
Sometimes, I feel like I am a different person when I am with my male friends.					
3. When my male friends think one way about something and I think another way, I can always tell them what I am thinking.					С
Sometimes, I don't really act like my true self when I am with my male friends.			_		
5. I try to avoid getting into arguments with my male friends.					
6. Sometimes it is harder to be myself when I am with my male friends than when I am on my own.					
7. I tell my male friends how I feel even though it might lead to conflict between us.					_
8. I feel I have to act a certain way to please my male friends.					
9. I only tell my male friends how I'm feeling about something if I know they are feeling the same way.					
10. My male friends don't really know the "true" me.					
11. In order for my male friends to like me, I cannot reveal certain things about myself to them.					
12. I don't tell my male friends how I feel about some things when I know it will cause a conflict between us.					
13. My male friends appreciate me for who I am.					
14. When my male friends do something that really makes me angry, I let them know it.					



# Appendix F

Friendship Intimacy Scale

### Friendship Intimacy Scale

58439		IC	):			
Please read the following sentences and rate how you fe	el toward	your cl	losest sa	me-sex f	riend.	•
	Strongly Disagree	Disagree	Disagree	Somewhat Agree 4	Agree 5	Strongly Agree 6
I know how my friend feels about things without him/her telling me.	1	2 □	3		<u> </u>	
2. I feel close to my friend.						
I know that whatever I tell my friend is kept secret between us.						
4. I feel free to talk with my friend about almost everything.						
Whenever you see me you can be pretty sure that my friend is also around.					0	
I know which kinds of books, games and activities my friend likes.						
7. I like my friend.						
I will not go along with others to do anything against my friend.						
If my friend does something which I do not like,     I can always talk with him/her about it.						
10. I like to do things with my friend.						
11. I know how my friend feels about me.		<u> </u>				
12. When my friend is not around, I miss him/her.						
<ol> <li>I speak up to defend my friend when other kids say bad things about him/her.</li> </ol>						
I talk with my friend about my hopes and plans for the future.			0			
15. I work with my friend on some of his/her hobbies.						
16. I can tell when my friend is worried about something						
17. When my friend is not around I keep wondering where he/she is and what they are doing.				0		
18. I tell people nice things about my friend.						

19. I tell my friend when I have done something that other people

20. I work with my friend on some of his/her school work

would not approve of.

### Appendix G

Measure of Intimacy in Adolescent Romantic Relationships

(The following questionnaire is a version presented to boys.

For girls the word "girlfriend" was replaced with the word "boyfriend")

### Measure of Intimacy in Adolescent Romantic Relationships

44831						
Please read the following sentences and mark ar GIRLFRIEND.	X in the I	box that d	escribes ho	w you feel	towards	your
I know how my girtfriend feels about things without ner telling me.	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
2. I feel close to my girlfriend.						
3. I know that whatever I tell my girlfriend is kept secret petween us.						
4. I feel free to talk with my girlfriend about almost everything.						
5. Whenever you see me you can be pretty sure that my girlfriend is also around.						
5. I know which kinds of books, games and activities my girlfriend likes.						
7. Hike my girlfriend.						
3. I will not go along with others to do anything against my girlfriend.						
If my girlfriend does something which I do not like, I always talk with her about it.						
10. Hike to do things with my girlfriend.						
1. I know how my girlfriend feels about me.						
2. When my girlfriend is not around, I miss her.						
3. I speak up to defend my girlfriend when other kids say bad things about her.						
4. I talk with my girlfriend about my hopes and plans for he future.						
5. I work with my girlfriend on some of her hobbies.						
6. I can tell when my girlfriend is worried about comething.						
7. When my girlfriend is not around I keep wondering where she is and what she is doing.						
8. I tell people nice things about my girlfriend.						
I tell my girlfriend when I have done something that ar people would not approve of.						
20. I work with my girlfriend on some of her school work.						

### Appendix H

### Social Style Questionnaire

(The following questionnaire is a version presented to boys.

For girls the word "girlfriend" was replaced with the word "boyfriend")



#### **Social Style Questionnaire**

	1	l .	
1		l .	l i
		l .	l i

Read each question and rate yourself on how good you would be in each situation with your GIRLFRIEND. Mark the appropriate box with an X.

	Poor at this	Fair at this	O.K. at this	Good at this	Extremely good at this
How good are you at asking a girl you'd like to date to do things together, like go to a ball game or a movie?					
2. How good are you at making your girlfriend feel better when she is unhappy or sad?					
3. How good are you at getting your girlfriend to go along with what you want?					
4. How good are you at telling your girlfriend private things about yourself?					
5. How good are you at resolving disagreements with your girlfriend in ways that make things better instead of worse?					
6. How good are you at going out of your way to start up new relationships with girls you'd like to date?					
7. How good are you at being able to make your girlfriend feel like her problems are understood?					
How good are you at taking charge when involved in activities with your girlfriend?					
How good are you at letting your girlfriend see your sensitive side?					
10. How good are you at dealing with disagreements with your girlfriend in ways that make both of you happy in the long run?					
11. How good are you at carrying on conversations with a new girlfriend that you would like to know better?					
12. How good are you at helping your girlfriend work through her thoughts and feelings about important decisions?					
13. How good are you at sticking up for yourself with your girlfriend?					
14. How good are you at telling your girlfriend embarrassing things about yourself?					
15. How good are you at resolving disagreements with your girlfriend in ways that neither of you feels hurt or resentful?					
5. How good are you at introducing yourself to a girl you'd like date?					

			 	 	_	
				7		
					. ! !	
44831	Social Style Questionnaire (continued)	_			—	

Read each question and rate yourself on how good you would be in each situation with your GIRLFRIEND.

	Poor at this	Fair at this	O.K. at this	Good at this	Extremely good at this
17. How good are you at helping your girlfriend handle pressure or upsetting events?					
18. How good are you at getting your girlfriend to agree with your point of view?					
19. How good are you at opening up and letting your girlfriend get to know everything about yourself?					
20. How good are you at dealing with disagreements in ways so that one of you does not always come out the loser?					