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Rachel L. Grover

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THE MEASURE OF ADOLESCENT HETEROSOCIAL COMPETENCE:
DEVELOPMENT AND CONSTRUCT VALIDATION

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B.S. Cornell University, 1993

A THESIS

Submitted in Partial Fulfillment of the

Requirements for the Degree of

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August, 2002

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THE MEASURE OF ADOLESCENT HETEROSOCIAL COMPETENCE:
DEVELOPMENT AND CONSTRUCT VALIDATION

By Rachel L. Grover

Thesis Advisor: Dr. Douglas W. Nangle

An Abstract of the Thesis Presented
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Despite the widespread consensus regarding the importance of other-sex relationships in adolescence, surprisingly little research has addressed the construct of adolescent heterosocial competence. The goal of this series of studies was to construct a measure of adolescent heterosocial competence, and in doing so, further define the construct. Nearly 500 adolescents participated in a series of four studies that followed the five-step method outlined in Goldfried and D'Zurilla's (1969) seminal article on assessing competence. The data generated in the first three studies were used to construct a 40-item multiple-choice measure entitled the Measure of Adolescent Heterosocial Competence (MAHC). These studies built upon a previously constructed taxonomy of adolescent-identified problematic heterosocial situations. The initial study in the present series completed the *situational analysis* step of the model by requiring a sample of adolescents to identify the most critical situations in the taxonomy (i.e., those that are difficult to resolve and occur with some frequency); a process referred to as *situational validation*. Next, another sample of adolescents generated a range of responses to each relevant situation in the *response enumeration* step. In Study 3, nine expert judges with extensive experience working with or researching adolescents judged the responses for competence to fulfill the *response evaluation* phase. The final study began a process of

measurement validation representing the *evaluation of the measure* phase. Item analysis of the MAHC revealed acceptable internal consistency. Using a multitrait-multimethod approach to construct validation, the MAHC was compared to measures of theoretically related (i.e., general social competence, heterosocial anxiety, conflict negotiation in dating relationships, and peer acceptance) and unrelated (i.e., socioeconomic status) constructs. As predicted, the MAHC converged with the measures of general social competence and heterosocial anxiety. No significant relationships were documented between the MAHC and measures of conflict negotiation skill in dating relationships or peer acceptance. Finally, consistent with predictions, the MAHC did not significantly correlate with a measure of socioeconomic status. Analysis of the pattern of relationships in the matrix suggests that the MAHC appears to be assessing a construct related to, but conceptually distinct, from both general social competence and heterosocial anxiety.

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CHAPTER 1: INTRODUCTION

Overview

Numerous studies show the predictive power of poor peer relations on later adjustment. Poor social relations are associated with a variety of negative outcomes including mental illness, criminal activity, aggression, poor classroom behavior, and failure to complete school (Akhtar & Bradley, 1991; Bagwell, Schmidt, Newcomb, & Bukowski, 2001; Kupersmidt, Coie, & Dodge, 1990; LaGreca & Lopez, 1998; Savin-Williams & Berndt, 1990; Vernberg, 1990). In response to the established links between childhood peer relationships and future functioning, researchers have set out to develop interventions designed to enhance social competence. Such efforts hinge upon reaching some consensus regarding how social competence is to be defined. Once a definition of competence is agreed upon, intervention efforts can focus on bringing an individual's social behavior closer to that definition. For example, researchers commonly define children's social competence as the degree of popularity within the peer group (Newcomb, Bukowski, & Pattee, 1993). Using peer sociometrics, each child within a class is asked to select the three classmates he or she likes the most (nominations) and/or rate each classmate's likability on a one to five scale (ratings). By comparing children who are viewed positively by their peers with children who are viewed less favorably, researchers are able to identify social skills that differentiate the groups (see Coie & Dodge, 1983; Inderbitzen-Pisaruk & Foster, 1990). These behaviors are typically the targets of social skills training (e.g., sharing, turn taking, peer entry).

Despite the importance of peer relationships in adolescence, the majority of existing research on social competence has focused on children and adults. The changing

social landscape of the adolescent makes defining social competence more complex. Adolescents gradually separate from parents and increasingly rely on peers for companionship and support. Friendship networks become larger, and more frequently include members of the other sex (Cairns, Leung, Buchanan, & Cairns, 1995; Csikszentmihalyi & Larson, 1984). Teens encounter new social situations (e.g., working at a part-time job, spending time with mixed-sex peer groups, dating) that demand new social skills (Nangle & Hansen, 1993). In light of such changes, the usefulness of a single, global definition of social competence is questionable. Rather, a number of researchers have suggested that competence be defined in a situation specific manner. For example, Ford (1982) defines adolescent social competence as the “attainment of relevant social goals in specified social contexts, using appropriate means, and resulting in positive developmental outcomes” (p. 323). Moreover, Spitzberg and Cupach (1989) state “clinical diagnosis of social incompetence requires contextualized and specific behavioral data” (p. 56).

The increased frequency and importance of other-sex interactions in adolescence requires a set of social skills referred to as heterosocial skills (Hansen, Christopher, & Nangle, 1992; Nangle & Hansen, 1993). Heterosocial skills are defined as those learned behaviors needed to function effectively in interpersonal situations involving the other sex (Galassi & Galassi, 1979). It is theorized that relationships with other-sex peers function to provide companionship, sexual experimentation, attachment, entertainment, mate selection, and intimacy (Furman & Wehner, 1997; Kelly & Hansen, 1987; Sullivan, 1953). In contrast, heterosocial skills deficits are related to such problems as alienation, rape, anxiety, depression, not using contraception, and teen pregnancy (Galassi &

Galassi, 1979; Nangle & Grover, 2001; Schinke, Blythe, & Gilcrist, 1981). Therefore, learning effective heterosocial skills in adolescence is a vital aspect of social development.

Despite its critical nature, adolescent heterosocial competence continues to be largely overlooked by peer relations investigators (Nangle & Hansen, 1998; Sippola, 1999). In a recent article, Sippola (1999) noted, "basic research on adolescents' relationships with other sex peers is almost non-existent" (p. 408). Existing research is focused almost exclusively on college-aged males and is generally limited to the narrow range of skills involved in date initiation (Nangle & Hansen, 1998). Thus, we know very little about the skills required in different stages of relationships, interactions surrounding sexual activity, friendships with other-sex peers, and more general interactions with other-sex individuals, such as those in the workplace or classroom.

The goal of the following series of studies is to define and measure adolescent heterosocial competence. The proposed studies are guided by the seminal work of Goldfried and D'Zurilla (1969) that provided a behavioral-analytic model for assessing competence. The behavioral-analytic model consists of five steps aimed at operationalizing competence that culminate with the validation of a measure. The first step is to identify critical situations, or situations that have a low probability of an "automatic" effective response. The second and third steps involve collecting and evaluating the target population's responses to the critical situations. Next, the situations are organized into measure format complete with scoring manual. Finally, the finished measure is evaluated for reliability and validity. This versatile approach has been applied to an extensive list of subject matter including social problem-solving ability (D'Zurilla

& Nezu, 1988), unwanted sexual contact (Murnen, Perot, & Burne, 1989), social competence among severely emotionally disturbed youth (MacNeil & LeCroy, 1997), and adolescent social competence (Cavell & Kelley, 1992).

Before describing the proposed series of studies, it is important to survey the developmental context of adolescence and the clinical relevance of heterosocial skills in adolescence. The transition between childhood and adulthood in terms of cognitive, biological, emotional, and social development presents a period of rapid change that is, at times, not conducive to the emergence of effective heterosocial skills. Unfortunately, many teens fail to competently negotiate difficult heterosocial situations with serious ramifications (e.g., unwanted sexual activity, abusive relationships, failure to use contraceptives). Moreover, it is worthwhile to examine the limited literature on adolescent heterosocial competence and the expansive literature on defining competence in order to fully grasp the challenge of developing a measure of adolescent heterosocial competence.

Adolescent Developmental Context

Adolescence is characterized as a period of major transitions that afford a number of developmental challenges and stressors. With the onset of puberty, teens undergo a dramatic physical transformation. Yet, physical changes during adolescence are merely the outwardly observable signs of maturation. The advancement of cognitive abilities during the adolescent period enables teens to solve abstract problems and be aware of their own mental processes (Keating, 1990). In addition, the daily emotional experiences of the adolescent is different than that experienced in both middle childhood or adulthood, although it is far from the dramatic “storm and stress” described by the media

(Steinberg, 1990). Social development in adolescence entails a gradual transition from the family to the peer group for support and social referencing (Larson, Richards, Moneta, Holmbeck, & Duckett, 1996). Peer relationships, including relationships with other-sex peers, are more important in adolescence than in any other developmental time period (Youniss & Haynie, 1992). Before examining the literature on adolescent social and heterosocial competence, it is important to look at the developmental context.

Biological Development

Biologically, youth undergo the most pubertal change in early adolescence. It is thought that the hypothalamic-pituitary-gonadal axis (HPG) affects the onset of puberty (Dyk, 1993). Average ages of onset for women are 10.5 years for breast buds and 12.5 years for menarche. For men, testicular growth occurs around 11.0 years of age and spermatarche usually falls between 12 and 14. Reactions to puberty are mixed (Brooks-Gunn & Reiter, 1990). For females, the onset of menarche has been associated with uneasiness, unhappiness, and an increase in peer status. Little research has been done on males' reactions to spermatarche. Research indicates that early developing girls and late developing boys are at risk for peer and psychological problems (Brooks-Gunn & Reiter, 1990; Ge, Conger, & Elder, 1996).

Cognitive Development

Cognitively, the developing adolescent is beginning to think more like an adult. Speed of processing becomes faster as thinking becomes more efficient (Keating, 1990). Piaget (1972) theorized that logical and moral reasoning develops during adolescence and for the first time, the adolescent can understand second order relationships and relative morality. According to Piaget (1972), strong beliefs thought to represent the onset of

organized theories also emerge in adolescence along with an increased ability to take the perspective of others. In addition, the adolescent becomes more self-aware, leading to an increase in self-reflection and self-monitoring (Keating, 1990). Perhaps an outgrowth of the increase in self-awareness at this age, the adolescent may harbor beliefs in the imaginary audience and the personal fable, two phenomena first described by Elkind (1967). The imaginary audience refers to the belief that everyone is watching or is aware of the adolescent. The personal fable alludes to the belief that his or her life is incredibly unique. These two constructs are most likely to appear in the early teen years and decrease in the late teen years (Lapsley, 1990).

Emotional Development

Adolescents encounter a different daily emotional experience than children or adults, but the reality is far from the turbulent image portrayed by the media. In order to investigate adolescent emotional experience, Larson and Lampman-Petaitis (1989) distributed pagers to children and adolescents ranging in age from 9 to 15 years and instructed them to record their emotions each time they were paged during the week. The results suggest that older teens (14-15) experience more frequent mildly negative states and fewer very positive states. The positive experiences reported occurred more often among friends than with the family. Indeed, negative interactions within the family increase in the teen years and adolescent reports of perceived parental approval plummet at the apex of puberty (Flannery, Torquati, & Lindemeier, 1994). Many theorists believe that the changing hormones of the teen years may be the cause of fluctuating emotions, however, little research supports the hypothesis (Flannery et al., 1994).

Social Development

The social landscape of the adolescent is in transition. Adolescents undergo a normative social refocusing as they gradually separate from parents and increasingly rely on peers for companionship and support. Teens begin to view their parents less as idealized figures and more as people who may have their own patterns of strengths and weaknesses. More and more, the adolescent learns to rely on him or herself (Larson et al., 1996). The majority of teenagers experience no more parental conflict during this stage compared with other stages of childhood, but it is estimated that about 20% of adolescents suffer through extreme family conflict (Dryfoos, 1990).

Throughout the teenage years, adolescents spend less time with their families and more time with their friends. Peer relations serve to offer social and emotional support and provide an environment that enables the development of independence outside of the family (Inderbitzen, 1994). With age, same-sex friendships become more stable, and friendship networks become larger and increasingly include members of several cliques (Cairns et al., 1995). Urberg (1995) concluded, from a longitudinal study of adolescents from 6th to 12th grade, that friendship becomes more exclusive with fewer overall friendships nominated, but with more mutual nominations. The characteristics of same-sex friendships change as well. Teens look for trust and loyalty in their friends and expect to enjoy common activities, low conflict, and a high level of intimacy (Berndt, 1981; Erdley, Nangle, Newman, & Carpenter, 2001; Inderbitzen-Pisaruk & Foster, 1990; Youniss, 1980).

Heterosocial Development

Adolescents engage in a shift from near same-sex exclusivity in friendships to increasing interaction with the other sex (Cairns et al., 1995; Csikszentmihalyi & Larson, 1984). Crockett, Losoff, and Petersen (1984) followed middle school students from 6th to 8th grade and found that in 6th grade, 47% of the students reported talking to the other sex on the phone. In the 8th grade, 75% of the students interacted by phone with the other sex. In addition, in 8th grade, the primary topic of conversation reported by teens was the other sex. The mean age of dating onset is between 13 and 15 (Thornton, 1990) although the reasons for dating change over the course of adolescence. Sixth graders report egocentric reasons like social prestige and acceptance for dating. In contrast, eleventh graders indicate mutual future goals as a primary reason for dating (Roscoe, Diana, & Brooks, 1987).

The average age of sexual debut is 16 years (Katchadourian, 1990) and at least 80% of adolescents have had sex before the age of 20 (Seidman & Rieder, 1994).

Although many assume that the onset of sexual activity is a result of the emergence of more adult-like hormones, research suggests that the age at first intercourse is more likely mediated by the peer group and social expectations (Brooks-Gunn & Reiter, 1990).

Sexual behavior usually progresses in a pattern beginning with autoerotic behavior that serves as a rehearsal and anticipatory coping strategy then progresses through kissing, petting, oral sex, and intercourse (Gordon & Gilgun, 1987; Katchadourian, 1990).

Adolescents who begin dating earlier than their same-age peers are more likely to engage in sexual activity at an earlier age than other teens (Thornton, 1990).

Summary

As teens enter a more adult-like world, they experience new social situations that require new social skills for competent functioning (Hansen, Christopher, & Nangle, 1992; Nangle & Hansen, 1993). A review of the above information reveals that although adolescents are thinking and behaving more like adults, the timing of development contrasted with the timing of engagement in heterosocial activities may put the adolescent at risk of participating in new social situations without the prerequisite skills for success. For example, the increase in self-awareness and self-monitoring may preclude the awareness of another person's feelings and needs thus impacting the establishment of friendship or development of intimacy. The personal fable may lead to a sense of perceived immunity from the potential negative outcomes of heterosexual interactions (e.g., pregnancy, STD's). Early physical development in both boys and girls is associated with the earlier onset of sexual activity (Brooks-Gunn & Reiter, 1990). Therefore, early physically developed adolescents may exhibit a disparity between biological development and cognitive development that may put them at risk in heterosexual interactions. In addition, teens are spending more time with peers and less time with family. Thus, teens are more likely to model their inexperienced peers in social situations rather than more skilled adults. Moreover, adolescents increasingly obtain information regarding heterosocial relationships from same-age peers rather than adults, a situation that can be problematic given that many teens are highly uninformed about such important issues as contraception (Gordon & Gilgun, 1987; Nangle & Hansen, 1998).

Adolescent Social Competence

One of the major developmental tasks of adolescence is the establishment of close peer relationships. The adolescent peer group provides social and emotional support and facilitates a gradual individuation from the family. Cognitive advances allow for deeper mutual understanding and more intimate self-disclosure between peers. Adolescent peer relationships may be critical in aiding the development of self-awareness, empathy, and prosocial behavior (Sharabany, Gershoni, & Hofman, 1981; Sullivan, 1953). Poor peer relationships are associated with many long-term negative implications including mental illness, criminal activity, aggression, poor classroom behavior, and failure to complete school (Akhtar & Bradley, 1991; Bagwell et al., 2001; LaGreca & Lopez, 1998). The empirical link between current peer relationships and later functioning has led many investigators to conclude that early relationships form building blocks that guide later relationships and adjustment.

Several theories examine the role of peer relationships in development and later functioning. Sullivan (1953) outlined the earliest theory to account for the link between peer relations and adjustment. According to Sullivan's (1953) developmental stage theory of interpersonal relationships, different types of social relationships fulfill specific interpersonal needs in each stage. The interpersonal needs emergent at each stage add to those existing from previous stages instead of replacing them, such that more complex social needs develop with age. During infancy and young childhood, most social needs of the child are met by the parents. During the juvenile era (6-9) years, peers begin to fulfill some of the interpersonal needs by providing emotional support, information, and playing a role in identity development. In early adolescence, friendships become a forum

for sharing personal thoughts and feelings, thus providing fertile ground for the development of intimacy. The skills developed at each stage provide a foundation for further development at the next stage. For instance, the development of intimacy in friendships in adolescence is critical for future adult romantic relationships.

Similar to Sullivan's theory, Weiss (1975) postulated that different types of relationships provide specific types of support, or social provisions. Extending this framework, Furman and Robbins (1985) detailed eight such provisions. Affection, intimacy, and a sense of reliable alliance (i.e., loyalty) are procured primarily through close, mutual friendships. The provision of inclusion, or sense of belonging to a group, is obtained primarily through peer group acceptance. The other four provisions, instrumental aid (i.e., helpfulness), nurturance, enhancement of worth, and companionship can be provided through both close friendships and peer acceptance.

Given that peer relations are more developmentally significant during adolescence than any other time of life (Youniss & Haynie, 1992), it is surprising that most investigations into the characteristics and effects of positive and negative peer relations focus on early childhood or adulthood (Inderbitzen-Pisaruk & Foster, 1990). The existing work on adolescent social competence involves studies of peer acceptance (i.e., popularity), friendship, and the social skills relevant to specific social tasks in adolescence. Peer acceptance refers to the popularity of an individual, or how well liked or disliked a child is by his or her peer group. Acceptance is most frequently assessed through nominations (e.g., name the three classmates you like the most) or ratings (e.g., rate how much you like to spend time with each classmate listed below) (Inderbitzen, 1994; Merrell, 1998).

Comparison studies of accepted versus rejected teens support the contention that peer acceptance plays an important role in social competence (see Inderbitzen-Pisaruk & Foster, 1990, for a review). Adolescents who are evaluated positively by their peers tend to be cooperative, attractive, and compliant. In addition, accepted peers tend to initiate activities, enjoy jokes, and give favors (Coie & Dodge, 1983; Coie, Dodge, & Coppotelli, 1982). Teens rejected by their peers are described as disruptive, snobbish, irritable, and not fitting in with peers (Coie & Dodge, 1983; Coie et al., 1982). Accepted teens tend to be more sociable, intelligent, report greater self-esteem, and achieve at a higher level in school than rejected teens (Bishop & Inderbitzen, 1995; Hartup, 1983; Savin-Williams & Berndt, 1990). Rejected social status has been associated with mental illness (e.g., anxiety, Vernberg, Abwender, Ewell, & Berry, 1992; depression, Vernberg, 1990), criminal activity, aggression, poor classroom behavior, and failure to complete school (Epstein, 1983; Parker & Asher, 1987; Savin-Williams & Berndt, 1990).

Research on adolescent social competence suggests that both status in the larger peer group and possession of a close friendship uniquely contribute to adjustment. In contrast to the well-established literature linking peer acceptance and later adjustment, not as much is known about the importance of close friendships (Bagwell et al., 2001; Erdley et al., 2001). It appears that acceptance and friendship are not redundant predictors of adjustment, but rather different dimensions of social competence that impact functioning in different ways. Each accounts for unique variance in the prediction of several aspects of adjustment including mental health, quality of school transition, and self-esteem (Bagwell, Newcomb, & Bukowski, 1998; Berndt & Keefe, 1995; Bishop & Inderbitzen, 1995; Erdley et al., 2001; Vernberg et al., 1992). For example, a close

friendship may act as a protective factor for otherwise rejected children. Several studies show that low-accepted children who report having a friend are less likely to endorse measures of loneliness and depression than their chumless peers (Bukowski, Hoza, & Boivin, 1993; Erdley et al., 2001).

The study of friendship focuses on the interactive dyad rather than group status. In preschool and early childhood, friendship is identified through mutual nominations or a combination of one nomination and mutual high ratings (Erdley, Nangle, & Gold, 1998). Identifying adolescent friendship dyads is more difficult. The contained classrooms of the earlier grades afford a relatively controlled social network. In contrast, the social network of the adolescent may extend across 75 to 200 grademates and beyond (Inderbitzen, 1994).

Adolescent peer networks include more individuals than those of earlier childhood. In addition, teens experience new social situations (e.g., working at a part-time job, spending time with mixed-sex peer groups, dating) that require new social skills. Given the expansive social network and increasingly adult-like social experience of adolescents, situation specific approaches to defining competence may be more appropriate than global measures. Cavell (1990) advocates for the inclusion of a situation specific component to social competence. Whereas peer status and friendship are the results of social functioning, the social skills that contribute to social competence are best examined through critical tasks encountered by teens. As such, in developing their measure of adolescent social competence, Cavell and Kelley (1992) polled adolescent subjects for relevant social situations. Adolescents also contributed possible responses to those situations that were later judged for effectiveness. The Measure of Adolescent

Performance (MASP) is a 54-item multiple-choice questionnaire composed of social situations paired with four response choices of varying effectiveness. Research on the MASP revealed that adolescents who obtained high MASP scores reported low parent-adolescent conflict and higher levels of global self-worth. Their teachers rated them as more well behaved, academically competent, and physically attractive. The MASP was unrelated to teacher reports of peer acceptance, but was related to measures of friendship quality. More specifically, highly socially competent adolescents were more likely to endorse less conflict, more intimacy, and more companionship in their friendships (Cavell & Kelley, 1992). The MASP reflects a broader view of social competence than peer status or friendship by including peer, family, and school items. However, the MASP contains only one item concerning other-sex peer relationships, thus largely overlooking the important construct of heterosocial competence.

Overall, the literature suggests that socially competent teens are more cooperative, compliant, and amicable than socially incompetent teens. Moreover, the skill with which teens navigate peer relations appears to affect both current and future adjustment including the propensity to develop a mental illness, engage in criminal behavior, achieve in school, and function at home and at work in adulthood. Yet there are many issues left unaddressed by the body of literature on adolescent social competence. For instance, the relationship between peer acceptance and friendship is still being investigated (Erdley et al., 2001). In addition, it is well documented that adolescents both value intimacy more and report more intimacy in their friendships than children at younger ages. However, we do not know if, as Sullivan (1953) suggests, adolescent intimacy with friends plays a role in the development of skills needed in adult intimate relationships. Application of

Sullivan's theory would suggest that adolescents whose social needs were successfully met by same-sex peers in early adolescence would be more likely to successfully negotiate social needs in middle and late adolescence (i.e., other-sex intimacy needs). Consistent with Sullivan's theory, Erikson (1963) contended that adolescent social relationships have a direct impact on the young adult's ability to accomplish intimacy. The key developmental crisis of early adulthood is the resolution of intimacy versus isolation. Depending on the outcome of the crisis, the young adult develops loving relationships and close friends or resists relationships with others out of fear. Finally, we know very little about adolescent relationships with the other sex (Sippola, 1999).

Adolescent Heterosocial Competence

Despite the pivotal role of heterosocial competence in adolescent social development suggested in the previously reviewed literature, there exists an inexplicable paucity of relevant research on this construct. Its small size notwithstanding, the existing research base provides a foundation for future work in this area. Before reviewing what is currently known about adolescent heterosocial competence as a springboard for future investigations, the limitations of this research, as well as some proposed reasons for the lack of relevant research, will be summarized.

Limitations of Existing Research Base

The lack of focus on adolescent heterosocial competence in the developmental literature appears to be part of a broader absence of interest in sex differences in peer relations research (Rubin, Bukowski, & Parker, 1998). The indices of social competence upon which this literature is based reflect and maintain the neglect. Social status is typically assessed using sociometric measures that require rating classmates on the basis

of how much they are liked using a Likert-type scale. Popularity, or acceptance, is determined by aggregating same-sex nominations/ratings or by collapsing all nominations/ratings without regard to sex. Friendship, another index of social competence, is typically assessed through reciprocal same-sex nominations. Even self-report measures based on broad conceptualizations of adolescent social competence devote few, if any, items to other-sex interactions (e.g., Cavell & Kelley, 1992; Inderbitzen & Foster, 1992).

In contrast, the heterosocial competence construct has long been of interest in the clinical literature. In the late 1970's, interest in heterosocial interactions peaked, as researchers came to view them as the ideal analog for anxiety research (Nangle & Hansen, 1993, 1998). Contributing to this view, anxiety engendered by dating and heterosocial interactions is common and, in its more extreme forms, is linked to a number of negative outcomes. For instance, studies using large college samples indicate that as many as 37% of males are very anxious about dating (e.g., Arkowitz, Hinton, Perl, & Himadi, 1978; Dodge, Heimberg, Nyman, & O'Brien, 1987). For some, these difficulties are more than just transient developmental challenges. Compared with low-anxious controls, high-anxious individuals participate in fewer other-sex interactions, exhibit poorer social performance in those interactions, and report lower satisfaction (Dodge et al., 1987). Also, highly socially anxious males evidence more difficulties in same-sex friendship interactions and general adjustment problems than their less anxious peers (Himadi, Arkowitz, Hinton, & Perl, 1980). Moreover, social anxiety and the avoidance of social situations may contribute to depression, alcoholism, and sexual dysfunction (Arkowitz, 1977; Dodge et al., 1987). In addition to the high prevalence and clinical

relevance of heterosocial anxiety, minimal dating was viewed as an ideal analog for anxiety research because of its negligible demand effects, and the strong and not easily habituated physiological reactions associated with heterosocial interactions (Nangle & Hansen, 1998).

The majority of studies published during this era compared socially anxious and non-anxious males on a variety of self-report and behavioral measures. In one of the first studies of this nature, high and low socially anxious males were compared on a number of self-report, behavioral, and heart rate measures as they participated in a role-play task with a female confederate (Borkovec, Stone, O'Brien, & Kaloupek, 1974). In a similar vein, Glasgow and Arkowitz (1975) evaluated the behavioral differences among high- and low-frequency daters, both male and female. In an attempt to identify aspects of behavior that differentiated the groups, the researchers administered self-report measures and assessed specific behaviors (e.g., gazing, talk balance ratio) in a verbal interaction with an other-sex confederate. Also, the confederate partner rated the participants on a scale of attractiveness. In addition to the assessment phase, some researchers then implemented an intervention aimed at improving the heterosocial interactions of the minimal daters. In one such study, Twentyman and McFall (1975) required college males self-identified as "unable to interact with women" to record daily interactions and participate in a battery of behavioral tests. Following the assessment, half the shy group was randomly assigned to an intervention phase consisting of behavioral rehearsal, modeling, and coaching that targeted telephone and face-to-face conversational skills. At post-test, the treatment group improved both in the analog role-play tasks and in self-monitoring reports of frequency and duration of interactions with women.

Although problems associated with adolescent heterosocial interactions, such as HIV/AIDS and unwanted teen pregnancies, have increasingly demanded national attention, clinical interest in heterosocial competence research has waned in recent years (Nangle & Hansen, 1998). In their review of the topic, Nangle and Hansen (1998) reported a dramatic decrease in articles published on the topic from 1975 to 1994. Despite the narrow focus of the review, the trend reflected in the three prominent clinical intervention journals is troubling. In summarizing this literature over the past three decades, Nangle and Hansen (1998) found that the vast majority of reviewed studies used primarily male participants, investigated heterosocial anxiety, relied almost exclusively on role-play assessment methodology, and investigated assessment rather than treatment. This sampling of studies clearly reflects the homogeneous nature of the examination of heterosocial competence in the clinical literature. The near exclusive interest in heterosocial anxiety may have prevented further investigation into the construct. For example, the broad range of heterosocial situations, gender differences, and developmental issues were left unexplored in the search for the skills required for college males to "get a date."

Skills Comprising Heterosocial Competence

Naturally, attempts to identify the more molecular skills comprising heterosocial competence will be limited by the indices employed to define competence. For example, in the peer relations literature, competence has often been defined as popularity or acceptance by the peer group (e.g., Newcomb et al., 1993). Efforts to determine what specific skills discriminate popular from unpopular children have come up with a range

of social behaviors deemed as competent (e.g., cooperation, communication; Bukowski et al., 1993; Newcomb et al., 1996).

As described above, existing heterosocial research has relied on date initiation as the index of competence. Attempts to identify the social skills that differentiate low- and high-daters have resulted in a range of behaviors including eye contact, smiles, voice quality, facial expressions, head nods, appropriate gestures, laughter, duration of speech, self-disclosing statements, conversational questions, compliments, follow-up comments, and requesting a date (Conger & Conger, 1982; Hansen et al., 1992; Kelly, 1982). Extended silences and response delays, speech dysfluencies, and negative statements have been linked to less successful heterosocial interaction (Kelly, 1982). The few studies that included female participants found similar results with occasional gender differences. Component behaviors identified for heterosocially skilled females were eye contact, response time, talk time, topic initiation, compliments, touching while laughing, and attractiveness (Galassi & Galassi, 1979; Muehlenhard, Koralewski, Andrews, & Burdick, 1986). Despite the wide range of identified molecular skills associated with successful daters, the component skills are similar to those that comprise general conversational competence (Hansen et al., 1992).

Longstanding definitions of heterosocial competence suggest that the use of a single index of competence, such as date initiation, is woefully inadequate. For example, as early as the 1970's, researchers defined heterosocial skills as those learned behaviors "necessary for initiating, maintaining, and terminating social and/or sexual relationships" with the other sex (p. 373; Hansen et al., 1992). This definition suggests that an adequate determination of what skills comprise heterosocial competence will be a particularly

challenging task. Not only would the component skills most likely change in various stages of a relationship, the situations in need of survey are likely to be very broad. Outside of the relationship realm, adolescent heterosocial interactions might occur in many varied contexts. In a recent study, high-schoolers described numerous situations involving the other sex as problematic. Grover and Nangle (in press) identified nine distinct themes within the participating adolescents' responses encompassing dyadic interactions within the bounds of casual relationships, friendships, romantic relationships, working relationships, and abusive relationships. For these reasons, some have suggested that a global definition or description of specific heterosocial skills may not be meaningful (e.g., Galassi & Galassi, 1979).

Identification of the range of critical heterosocial situations is made more important by the likelihood that the social skills needed for competence will be somewhat situationally bound (Kelly, 1982; Kelly & Hansen, 1987; Mischel, 1968). Nangle and Grover's (2001) recent study provides an example. Based on a conceptualization of social skills, heterosocial skills, and sexual-interaction skills as separate, yet related dimensions of behavior requiring different sets of skills, the researchers examined the relationship between several indices of social behavior and condom use among males. Interestingly, general measures of assertiveness and problem solving were inversely related to the consistent use of condoms. Thus, more "socially competent" males (those who scored high on assertiveness and problem solving) were less likely to consistently use condoms. Instead, engagement in contraceptive-related social behaviors (e.g., discussed contraception with a partner, declined sex with a partner who refused to use a condom) was a more accurate predictor of consistent and competent condom and

contraceptive use. The results suggest that the skills required in sexual situations are specific to those situations and may be different from those assessed in global measures of traits thought to be associated with social competence.

Overlap with Same-Sex Social Competence

The extent of the overlap between same-sex social skills and other-sex social skills is not known, but is considered to be large (Kelly, 1982; Nangle & Hansen, 1993; 1998). Both same-sex and other-sex relationships require the ability to initiate and maintain conversation, negotiate conflict, and act in socially appropriate ways (Conger & Conger, 1982; Kelly, 1982). In addition, many of the component behaviors used in same-sex social situations may be the same as those employed in other-sex interactions. In one study, a significant relationship was reported between component skills (e.g., eye contact, smiles, nervous gestures) used in role-playing a social situation with a same-sex confederate and those behaviors exhibited in the same interaction with an other-sex confederate (Chee & Conger, 1989). Moreover, it is likely that due to the affiliative properties of friendship, competent teens seek out other competent teens and may learn effective skills from each other. Dunphy (1963) observed that teens move from small same-sex cliques to mixed-sex crowds over the course of adolescence. Nangle and Hansen (1998) speculate that more socially competent teens may have a broader social network, composed of more competent peers, that may provide increased opportunities to learn heterosocial skills, thus facilitating the transition from same-sex exclusivity to increased mixed-sex interaction. Supporting this contention, Connolly, Furman, and Konarski (2000) found that for high school students, the size of the same-sex peer network predicts the size of the other-sex peer group network. In the same way, less

socially competent teens may have fewer chances to practice and hone skills and may be involved primarily with deviant peers. In fact, research suggests a relationship among antisocial behavior, substance use, and early engagement in sexual intercourse during the teen years (Capaldi, Crosby, & Stollmiller, 1996; Tubman, Windle, & Windle, 1996).

The results of an extensive 3-year longitudinal study of adolescent social development paint a complex picture of the relationship between same-sex and other-sex interactions and the role that friends play in the onset of romantic relationships (Connolly et al., 2000). In the first part of a two-pronged study, Connolly et al. (2000) examined the structural qualities of same- and other-sex friendship and peer network patterns across the 9th, 10th, and 11th grades and the context in which romantic relationships emerge. The investigators found that the size of same- and other-sex peer networks was highly related. Teens that reported large same-sex networks also indicated large other-sex networks. As expected, the number of other-sex peers identified as in the network increased over the three-year period. In contrast, the number of same-sex peers classified in the network decreased over the same period of time. Regarding romantic relationships, the number of other-sex peers was related to the report of a romantic relationship both at the time of the report and in the subsequent years.

The authors formulated several conclusions from the patterns described above. First, the relationship between the size of the same- and other-sex networks suggests that the ability to establish same-sex close friends and a group of same-sex peers is associated with the ability to establish similar relationships with other-sex peers. Second, the number of other-sex alliances increase over the teen years as the number of same-sex alliances decrease. Finally, the authors note that the size of the other-sex network in

adolescence may assist in the development of romantic relationships in several ways. As Dunphy (1963) theorized, mixed-sex groups provide the opportunity to meet and become romantically involved with the other sex. Indeed, adolescents may date other-sex peers in their network; however, Connolly et al (2000) found that the majority of romantic alliances occurred with an individual outside the other-sex network. In fact, only 8% of the romantic relationships reported in the 11th grade included a person previously identified as in the peer network. Instead, adolescents who interact more frequently with the other sex may be more able (i.e., have the social skills) to establish romantic relationships. As such, it may be that the other-sex network provides the opportunity to become familiar with the other sex and to practice some of the social skills needed to begin a romantic relationship.

Connolly and colleagues (2000) also investigated the overlap between the quality of same- and other-sex relationships. Participant ratings of support and negative interactions in friendships were highly related to ratings of concurrent romantic relationships. Thus, an adolescent's ability to garner support and limit negative interactions in their relationships may be mutually supported by their same- and other-sex relationships. One interpretation is that skill in other-sex interactions is dependent upon competence in same-sex social situations. A more likely explanation is a complex interplay of skill development. More competent teens may have more opportunities to learn more skills with both genders. Also, skills learned with one sex may be transferred to similar situations with the other sex. For example, teens may rely on their same-sex peers to give them feedback regarding their romantic relationships. Then, when they

develop new skills within the romantic relationship they may apply them to same-sex situations or share the knowledge with their same-sex friends.

The interplay of skill development between same- and other-sex relationships is demonstrated in the development of intimacy skills. The skills needed to establish intimacy are usually first present within same-sex friendships. According to Sullivan (1953), childhood friendships are unique in that they are the first intimate relationships experienced between individuals of equal status. Within the friendship dyad, individuals learn about the mutual understanding, respect, and warmth associated with intimacy. Connolly and Goldberg (1999) theorize that adolescents continue to learn intimacy skills within the context of both same-sex friendships and romantic relationships. For example, in early adolescence, peers provide a reference group for discussing and analyzing romantic relationships, thus contributing to the development of intimacy in the romantic relationship. At the same time, the sharing of personal thoughts and experiences concerning romantic relationships most likely contributes to the amount of intimacy between friends. Connolly et al. (2000) conclude that the relationship between same- and other-sex interactions is probably characterized by a dynamic and intertwined process rather than by a linear association.

Functions of Heterosocial Interactions

Although the overlap between general social skills and heterosocial skills is theorized to be considerable, heterosocial interactions are likely to require a distinct range of competencies that serve unique developmental functions. Two recent reviews of the literature regarding the functions of heterosocial interactions concluded that research in this area is in its infancy (Monsour, 2002; Sippola, 1999). The existing research suggests

that other-sex relationships fulfill a range of needs including some of the same needs as same-sex friendships including affection, companionship, intimacy, and a sense of inclusion (Connolly et al., 2000; Kuttler, LaGreca, & Prinstein, 1999; Sharabany et al., 1981). In addition, other-sex friendships offer an insider perspective of what it means to be the other sex, validation of attractiveness, and preparation for adult interactions with the other sex (Furman & Shaffer, 1999; Rawlins, 1992; Sippola, 1999). Romantic relationships provide adolescents with opportunities for experimentation with sex role behaviors and sexual activity, autonomy, enhancement of peer status, and courtship and mate selection (Furman & Wehner, 1997; Hansen et al., 1992).

Adolescent other-sex friendships meet needs similar to those needs met by same-sex friendships including social support and companionship. Buhrmester (1996) described companionship as the most important function of friendship across the developmental stages of childhood. A steady companion represents enjoyable company on outings and someone with whom to discuss the events of each day. Research suggests that adolescents consider both sexes when establishing friendships. In a study of the friendship patterns of over 200 adolescents, Kuttler et al. (1999) reported that 40% of the boys and 50% of the girls indicated having an other-sex friend. The average ratings of companionship between same-sex and other-sex friendships were not significantly different. Moreover, there is strong evidence to support that same-sex friendships offer a buffer against loneliness and depression (Erdley et al., 2001; Parker & Asher, 1993). In response to discovering that adolescents report feeling lonely 23% of their waking moments, Larson (1999) hypothesized that other-sex friends might also serve a protective purpose.

Despite the similarity in provisions afforded by same- and other-sex friends, other-sex friendships offer some additional functions. For example, Sullivan (1953) theorized that other-sex companionship might be especially important for those adolescents who are not involved in a dating relationship due to the affirmation of attractiveness. In addition, other-sex friends may supply adolescents with insider information about the other sex that may help the teen navigate the new social world. Due to the gender segregation common in middle and late childhood, many individuals enter the teen years with little understanding of how members of the other sex think and behave. This insider information about how the other sex thinks and feels may serve to improve communication between males and females. In this way, Sippola (1999) hypothesized that adolescents with other-sex friendships may experience more understanding of sex roles and harbor fewer stereotypes of the other sex. Finally, for heterosexual teens, other-sex friendships may serve as preparation for romantic relationships (Sippola, 1999). Other-sex friendships may provide the opportunity to develop and practice social skills necessary in romantic relationships and/or cross-sex friendships may eventually develop into romantic relationships. Indeed, teens included in a larger mixed-sex peer network are more likely to report engagement in a dating relationship (Connolly et al., 2000).

Engaging in casual dating and committed romantic relationships may serve an important function in the social development of the adolescent. For instance, regularly dating teens obtain higher ratings on measures of popularity, self-image, and acceptance by friends than their non-dating peers (Connolly & Johnson, 1993; Long, 1989). Also, participation in a steady romantic relationship may provide a venue for either practicing

(for females) or further developing (for males) intimacy skills (Feiring, 1999). According to Sullivan (1953), the transition into early adolescence is marked by a shift in the need for acceptance to the need for interpersonal intimacy. It is in the provision of intimacy needs that other-sex interactions may have the most lasting impact on later adjustment. Indeed, romantic partners are increasingly rated as primary support figures across the adolescent years, rapidly overtaking ratings of family members and friends (Furman & Buhrmester, 1992). In addition, the intimacy reported in other-sex relationships greatly increases between the 5th and 11th grades (Sharabany et al., 1981). Increased intimacy with the other sex may also contribute to the development of autonomy from the peer group. The effect of peer pressure is strongest in the early adolescent years when intimacy between same-sex friends is at its peak. Responsiveness to peer pressure declines with age and with increased romantic alliances (Connolly & Goldberg, 1999). In addition to dating relationships, sexual experiences during adolescence are also common, although the developmental function of such interactions has not been explored.

In keeping with the view of leading theorists that earlier social interactions form templates for the development of later relationships (e.g., Erikson, 1963; Hartup, 1992; Sullivan, 1953), adolescent heterosocial interactions are likely to play an integral role in the development of future romantic, as well as other interpersonal, relationships. Although there is no longitudinal research on the link between other-sex relationships in adolescence and those in adulthood, we know that same-sex friendships have long-term effects on development. For example, having a close friend in preadolescence predicts a

more positive social life in terms of family, friends, school performance, and legal trouble at ages 23 and 28 (Bagwell et al., 2001).

Learning Mechanisms Involved in Heterosocial Skill Development

Social skills are learned behaviors required to function effectively in interpersonal situations by obtaining rewarding outcomes and minimizing punishing outcomes (Kelly & Hansen, 1987). A subset of the larger class of social skills, heterosocial skills are those learned behaviors needed to function effectively in interpersonal situations involving the other sex (Hansen, Christopher, & Nangle, 1992). These skills aid in the provision of companionship, sexual experimentation, attachment, entertainment, mate selection, intimacy, and the opportunity to develop more adult-like social behavior (Furman & Wehner, 1997; Kelly & Hansen, 1987; Sullivan, 1953). There are several situations that demand different skills. For example, different subsets of heterosocial skills are necessary for maintaining other-sex friendships, initiating dates, and functioning in sexual interactions (Nangle & Hansen, 1998). Although different types of situations may require different sets of relevant behaviors, it is hypothesized that the pathways for skill development and dysfunction are the same for social and heterosocial skills. Both general social skills and heterosocial skills most likely develop through the same learning mechanisms (Hansen et al., 1992; Kelly, 1982; Kelly & Hansen, 1987). According to social learning theory, avenues for learning social skills include observational learning (modeling), learning reinforcement contingencies, naturalistic learning (participation), and cognitive attributes (learning self-evaluation) (Nangle & Hansen, 1993, 1998).

Observational learning. Observational learning requires contact with social skill models. Looking more closely at the social landscape of adolescence, it appears that the

most often-encountered models will be peers. Adolescents spend more time interacting with peers than family members, even discounting time spent in school (Csikszentmihalyi & Larson, 1984). This dramatic increase in time spent with peers allows for extensive exposure to peer models that vary in their level of social experience and competence. Thus, teens observe and learn new clothing styles, slang, and social interactions from other peers. The increased participation in mixed-sex crowds likely provides an opportunity to observe more experienced peers interact with the other sex prior to full participation in heterosocial situations. Moreover, teens are often very involved in their same-sex peers' romantic relationships. As such, Simon, Eder, and Evans (1992) observed that groups of close same-sex friends often discussed sexuality and romantic relationships. This reciprocal self-disclosure both provides support for the adolescent in the romantic relationship and also acts as a conduit for learning about new heterosocial situations. As such, the competence of the peer group at large affects the competence of the skills learned. For example, inclusion in a deviant peer group may expose an adolescent to less competent heterosocial skills.

Consequences of social behavior. The consequences of social behavior (either rewarding or punishing) determine the likelihood of the maintenance of the behavior. Therefore, behaviors that elicit a favorable response are increased and those that trigger a punishing response are extinguished. Increased peer social interaction affords adolescents more opportunities for trial and error learning of reinforcement contingencies. The consequences of a heterosocial behavior may come from many sources including the peer group at large, the other-sex individual involved in the interaction, and the self. The peer group rewards and punishes other-sex behavior

according to their values. For example, adolescents frequently enjoy increased peer status after entering into a dating relationship (Hansen et al., 1992). In order to gauge peer reaction, teens often voice new ideas and beliefs to friends. Similarly, teens frequently discuss other-sex relationships with the peer group for support and feedback. In this way, the peer group dictates many of the heterosocial behaviors of adolescents. Recently, Capaldi, Dishion, Yoeger, and Clark (1999) observed that hostile talk amongst boys mediated the relationship between early antisocial behavior and aggressive romantic relationships in adulthood. The other-sex individual involved in the social interaction may influence the behavior by continuing to engage in a conversation, becoming a close friend, turning down a date, or breaking off a committed relationship. Intrinsic rewards may be the support and intimacy provided by successful relationships, or the physical experience of sexual intercourse. In addition, an adolescent is more likely to attempt new social situations if he or she has a history of reinforcing social experiences. Thus, an individual's current level of competence may influence their future level of competence.

Participation. Both observational and operant learning require participation in a peer group for social learning to occur. As Connolly et al. (2000) demonstrated the size of the same-sex peer group is directly related to the size of the other-sex peer group. Therefore, adolescents who have a small same-sex peer group tends to also report a small other-sex network. Adolescents who engage in fewer peer interactions have less chance to observe competent models and reduced opportunities to practice social skills. This lack of participation also translates into fewer opportunities to learn what behaviors will be reinforced and what behaviors will be punished in same- and other-sex situations (Hansen et al., 1992).

Cognitive factors. Several cognitive factors affect the development of social skills including self-evaluation, attributional decisions (e.g., perceived reasons for, locus of control of success or failure), and social identity. An adolescent's self-evaluation of physical attractiveness may influence his or her willingness to engage in other-sex peer interaction. Moreover, the attribution or belief of control over the outcome of heterosocial situations may impact the amount of interaction. In addition, both self-evaluation and attributional style may affect the level of anxiety experienced in heterosocial situations. High anxiety over heterosocial situations can lead to avoidance (i.e., absence of opportunity to learn skills), impeded processing of events due to competing anxious thoughts (i.e., failure to learn from situations experienced), and impaired skill expression (i.e., failure to effectively execute learned skills). Finally, affiliation with a specific crowd often represents a social identity that helps determine the quality of relationships formed (Youniss, McLellan, & Strouse, 1994). The values expressed by a clique (e.g., populars, jocks, loners) may determine how a member acts toward the other-sex (Monsour, 2002). For example, teens that labeled themselves as "brains" described their group in terms of intelligence and lack of other-sex affiliation. In contrast, "popular" teens stated that they were well-known and had many friends (Youniss et al., 1994).

Heterosocial Skills Deficits

The primary models proposed to explain heterosocial dysfunction include anxiety, social skills deficits, negative cognitive evaluations, and physical attractiveness (Hansen et al., 1992). Although the different pathways are discussed separately, there are interactive influences. For example, physical attractiveness may affect inclusion in a peer

group that then may influence the opportunity for learning social skills. Similarly, level of anxiety and skill may affect perceived attractiveness.

Anxiety. As reviewed above, there is a large body of research on heterosocial anxiety and its role in minimal dating. Anxiety in heterosocial situations is common and difficult to habituate through exposure. It is estimated that between 15% and 30% of college students report being anxious about dating (Arkowitz et al., 1978; Borkovec et al., 1974). In addition, college students report feelings of fear and anxiety more than any other emotional experience when discussing dating situations (Boon & Pasveer, 1999). Heterosocial anxiety has been associated with poor social performance, less satisfaction in their performance, adjustment problems, and difficulties in friendship interactions (Dodge et al., 1987; Himadi et al., 1980). College students who report high levels of anxiety report lower scores on measures of dating competence and social assertion than their more confident peers (LeSure-Lester, 2001). Anxious individuals tend to interpret experiences more negatively, expect negative evaluations, and use problem-solving strategies less frequently (Galassi & Galassi, 1979). Anxiety may also inhibit successful execution of social skills (Hansen et al., 1992).

Social skills deficits. Within the social skill model, dysfunction can occur in any one or more of the avenues for social learning. Therefore, heterosocial skills deficits may be a result of disruption in observational learning (modeling), learning reinforcement contingencies, and/or naturalistic learning (participation). The developmental context of adolescence presents unique challenges to social learning. For example, other-sex individuals are rarely nominated as members of adolescents' peer networks until mid-adolescence. Prior to this time, most friendship networks are gender segregated. The

effect of this segregation is a paucity of social learning opportunities regarding even basic skills applicable to other-sex interactions until actual participation in the mixed-sex groups of adolescence (Sippola, 1999). As current skills are the result of a learning history, it is possible that the success or failure of initial interactions with other-sex peers plays an important part in later development. For example, a series of failures may teach an adolescent what not to do, but the teen may have little idea of the behaviors that would elicit success. Moreover, initial failures may cause reduced attempts at heterosocial interaction in the future.

The learning of skills involved in romantic situations presents unique difficulties to adolescents. Due to the solitary nature of dating and sexual activities, the opportunities for observing heterosocial behavior are limited, thus reducing the opportunities for modeling. In addition, trial and error learning in heterosocial situations may be risky (e.g., failure to discuss birth control prior to sexual intercourse may result in pregnancy). Learning through reinforcement contingencies could result in incompetent attempts (e.g., force) being positively reinforced (e.g., sexual experience). Similarly, the avoidance of awkward social interactions (e.g., discussing contraception) may be rewarding as anxiety is reduced. Moreover, research suggests that the onset of sexual activity often occurs prior to opportunities to mix with large groups of both sexes, thus there may be little opportunity to practice heterosocial skills prior to sexual activity.

In addition to the above challenges to learning heterosocial skills, heterosocial skills deficits could emerge as a result of problematic peer relationships. Connolly and Goldberg (1999) outline two possible pathways to deficient heterosocial skills, one that considers withdrawn youth, and one that looks at aggressive youth. The social

relationships of withdrawn youth are usually characterized by an absence of inclusion in the peer group. Therefore, these youth are less likely to have access to a large same-sex peer group, and less likely to be a part of a mixed-sex network. As a result, withdrawn youth may experience a delay in the onset of a dating relationship. More importantly, withdrawn youth may enter a romantic relationship with fewer social skills. For example, socially withdrawn youth have less experience with friendships, and consequently may have fewer skills to establish appropriate levels of intimacy. Due to the absence of a reference peer group, these youth may also be more susceptible to media images of romantic relationships and experience a discrepancy between the actual and idealized relationship.

In contrast, the trajectory for aggressive youth is hypothesized to be different from withdrawn youth, although the resulting romantic relationships are also problematic (Connolly & Goldberg, 1999). Although often rejected by the larger peer group, aggressive youth frequently have a smaller, deviant friendship group. There is some evidence that this deviant peer group reinforces aggressive behaviors that then may be transferred into romantic relationships. For example, youth identified as bullies are more likely to sexually harass other youth, and more likely to report using physical aggression in a romantic relationship than those not identified as bullies (Connolly, McMaster, Craig, & Pepler, 1998). Similarly, youth that report more physical aggression with a romantic partner are more likely to have a history of physical violence toward peers (O'Leary, Malone, & Tyree, 1994). In addition, antisocial youth often have romantic partners who are also described as antisocial. Relationships between two antisocial youth are more likely to be characterized by violence (Connolly & Goldberg, 1999).

Negative cognitive evaluations. Many individuals who exhibit less competent heterosocial skills possess the knowledge of effective behaviors, but do not produce the correct responses. This failure to perform competently may be due to faulty cognitive evaluations. Research on cognitive influences focus primarily on the effect of cognitive evaluations on anxiety regarding heterosocial interactions. Negative self-evaluations of performance or ability and selective memory of unsuccessful experiences increase anxiety (Hansen et al., 1992). In addition, Kelly and Hansen (1987) theorize that maladaptive or inaccurate self-appraisals in heterosocial situations may negatively impact social learning. Moreover, negative self-perceptions of lack of skill in heterosocial situations or unattractiveness may contribute to both anxiety and skill-implementation deficits.

Physical attractiveness. The relationship between physical attractiveness and heterosocial dysfunction is less researched than the above models (Hansen et al., 1992). Physical attractiveness has been related to more frequent dating and higher ratings of likability (Galassi & Galassi, 1979; Kelly, 1982). Physical attractiveness may be more influential in younger daters, in the first exchanges of heterosocial relationships, and in males (Hansen et al., 1992, Stewart, Stinnett, & Rosenfeld, 2000).

Clinical Relevance of Heterosocial Skills Deficits in Adolescence

In addition to the problems associated with anxiety and minimal dating cited earlier, it is hypothesized that heterosocial skills deficits are associated with problems such as rape, other types of violence in teen relationships, and inconsistent contraceptive use. Unfortunately, little research has been done to investigate the effects of heterosocial deficits beyond minimal dating (exceptions include Barthlow, Horan, DiClemente, &

Lanier, 1995; Bruch & Hynes, 1987; Nangle & Grover, 2001). The prevalence of such interpersonal problems among adolescents underscores the need to further examine and understand adolescent heterosocial competence.

Unwanted sexual contact. Approximately 10% of male and 20% of female adolescents have experienced unwanted sexual activity, ranging from unwanted touches to forced intercourse (deGaston, Jensen, & Weed, 1995; Jezl, Molidor, & Wright, 1996; Small & Kerns, 1993). Research on unwanted sexual activity has focused on incidence and prevalence rates rather than on causes. There is a small body of literature to suggest, however, that some instances of unwanted sexual activity are linked to heterosocial skills deficits. Specifically, sex offenders frequently exhibit faulty perspective-taking by concluding that their victims enjoyed the experience despite evidence suggesting otherwise (Abel, Becker, & Cunningham-Rathner, 1984; Nangle, Hecker, Grover, & Smith, in press). Also, social skills training is often included in treatment packages for sex offenders and it is assumed that increased empathy will result in decreased chances of future sexual assault (Hanson & Scott, 1995).

Violence in adolescent relationships. In a poll of high school students, Jezl and colleagues (1996) discovered that 59% had experienced physical violence in a dating relationship at least once. Males reported being the victim of significantly more moderately abusive acts (e.g., hair pulling, kicking, scratching) than females. There was no significant gender difference in the experience of more severe violent behaviors (e.g., intentionally choked, threatened with a weapon). Relationship aggression in adolescence may represent an outgrowth of aggressive peer relationships (Connolly & Goldberg, 1999). Aggressive youth often create a peer network composed of other aggressive

youth. Inclusion in a deviant peer group increases the likelihood that other-sex relationships will be characterized by higher levels of violence than those of their non-deviant peers. Adolescence represents a critical period for the development of violent relationships (Wolfe & Wekerle, 1997). Early dating experiences afford teens with the chance to learn and practice communication and problem-solving skills that may later be applied to adult relationships. In fact, the presence of violence in dating relationships in adolescence is a strong predictor of relationship violence in young adulthood and marriage (O'Leary et al., 1994). Unfortunately, many teens new to dating exhibit a poor understanding of normative dating behavior and thus, accept abusive acts as an expected part of dating (O'Leary et al., 1994).

Contraceptive use. Contraceptive use in the teen years is frequently inadequate, inconsistent, or incorrect. For example, Warzak, Grow, Poler, and Walburn (1995) reported that roughly 78% of adolescents reported not using any form of contraception during their last sexual intercourse experience. Despite an increasing awareness of the protective value of condoms, most sexually active adolescents either do not use condoms or are inconsistent in their use (Caron, Davis, Halteman, & Stickle, 1993; Nangle & Grover, 2001). In fact, most studies indicate that less than 30% of adolescents report always using a condom during sexual intercourse (Caron et al., 1993; Nguyet, Maheux, Beland, & Pica, 1994; Warzak et al., 1995). Interventions designed to increase contraceptive use usually target communication, assertion, and problem-solving skills (DiClemente, 1993; Sheeran, Abraham, & Orbell, 1999). However, only those social skill measures that assess skill in contraceptive situations, as opposed to trait-like measures, are directly related to reports of condom and contraceptive use (Bruch &

Hynes, 1987; Nangle & Grover, 2001). The lack of consistent use of birth control most likely contributes to the high prevalence rates of pregnancy and sexually transmitted diseases in adolescence.

One million adolescents in the United States become pregnant each year, contributing to the highest teen birth rate of all developed countries (Bronfenbrenner, McClelland, Wethington, Moen, & Ceci, 1996; Henshaw, 1994). The Centers for Disease Control (1995) reveals that 13% of all births are to women under the age of 19 and 20% of these births are fathered by men under the age of 19. Approximately one-fifth of inner-city male teens report being involved in a pregnancy (Guagliardo, Huang, & D'Angelo, 1999).

AIDS is now the sixth leading cause of death among persons aged 15 to 24 years (Centers for Disease Control, 1998). An estimated 20% of HIV positive adults became infected with the virus in adolescence (Brown, Baranowski, Kulig, & Stephenson, 1996). Rates of other sexually-transmitted diseases (STDs), such as gonorrhea and chlamydia, within this age group have reached epic proportions (more than three million teens per year contract an STD) and constitute a major health threat (Centers for Disease Control, 1995; Grimley & Lee, 1997).

Summary

Despite the consensus regarding the importance of other-sex relationships in adolescence, the construct of adolescent heterosocial competence has yet to be clearly defined. This unintentional void is a byproduct of the indices used to define general social competence and heterosocial competence in the past. The developmental peer relations literature is limited by the near exclusive focus on same-sex relationships.

Although this narrow focus served a purpose, allowing a close examination of the function and effect of social competence and friendship, the result is an unfinished description of the adolescent social world. In the clinical literature, the majority of existing literature on heterosocial competence falls under the rubric of the study of social anxiety and minimal dating in college males and not on the broader construct of heterosocial skills (Galassi & Galassi, 1979; Nangle & Hansen, 1993, 1998). Consequently, the current knowledge base is limited by constraints on age, gender, and the focus on developing an effective anxiety analog.

Due to the extensive range of situations comprising the realm of heterosocial interactions, the use of a single index of competence is far from adequate. Several researchers have advocated for a situational-based investigation into competence (Bem & Allen, 1974; Goldfried & D'Zurilla, 1969; Martin, 1988). Indeed, recent research stresses the importance of including skills used in a broad range of situations in our conceptualization of adolescent heterosocial competence. In addition to dating, teens report that other-sex interactions associated with acquaintanceships, friendships, committed relationships, and sexual relationships are also problematic (Grover & Nangle, in press).

The broad array of new social situations experienced in adolescence requires new social skills. Nangle and Hansen's (1998) conceptualization of social skills, heterosocial skills, and sexual-interaction skills as separate, yet related dimensions of behavior stresses the situation-specific nature of social competence. As such, social competencies would be expected to be somewhat similar across domains, yet with the possibility for an individual to be competent in one area and be ineffective in another.

The overlap between same- and other-sex social skills is theorized to be considerable. Relationships with both sexes require the ability to initiate and maintain conversation, problem-solve regarding areas of conflict, and act within social mores. Moreover, adolescents who are more generally socially skilled may have increased opportunity to develop heterosocial skills. More socially competent teens learn from their more competent peers, have larger same-sex peer groups, and larger other-sex peer groups (Connolly et al., 2000; Nangle & Hansen, 1998). Moreover, adolescents evidence a similar level of competence in their ability to foster support and limit negative interactions in their same-sex friendships and romantic relationships (Connolly et al., 2000).

Despite the considerable overlap between same- and other-sex social skills, heterosocial relationships likely serve a range of unique developmental functions. Other-sex friendships fulfill many of the same needs as same-sex friendships including support and companionship. Provisions afforded exclusively by other-sex friendships include an insider perspective to the other sex, validation of attractiveness, and preparation for other-sex interactions in adulthood. Romantic relationships in adolescence function to facilitate the development of autonomy, individuation, and intimacy as well as offer opportunities for sexual experimentation.

Similar modes for acquisition of skills apply to both general social skills and heterosocial skills. Therefore, heterosocial skills are learned through modeling, operant learning, and participation, and are mediated by beliefs and perceptions about the self. Similarly, deficits in heterosocial skills likely develop through pathways analogous to those that lead to general social skills deficits. Heterosocial skills dysfunction may be the

result of anxiety, failure to learn the necessary social skills, maladaptive cognitive distortions, and/or physical unattractiveness. In addition to minimal dating, descriptive statistics reveal several problems associated with teen interactions with the other sex (e.g., rape, teen pregnancy, violent dating relationships). However, the actual relationship between heterosocial skills deficits and the above problematic outcomes is unknown. In order to investigate further the effects of heterosocial deficits during the teen years, there first needs to be a working definition of adolescent heterosocial competence.

Defining Social Competence

The study of competence in personal relationships extends back to Thorndike (1920, as cited in Spitzberg & Cupach, 1989) who operationalized social competence as the skills required to understand others and act effectively in relationships. The construct of social competence was reexamined in the 1960's as part of a cultural movement to refocus the mental health field to consider client strengths over client weaknesses as advocated by the disease model of classification (Cavell, 1990). Today's literature on social competence is large and tends to be fragmented as it is fueled by multiple paths of investigation. For example, social competence has been examined as it pertains to effective behaviors at work, in the classroom, in health care, and mental illness, as well as how it is connected to the constructs of assertiveness and empathy (Spitzberg & Cupach, 1989). Dodge (1985) asserted that the "number of definitions of social competence...approaches the number of investigators in the field" (p. 3). In his review, Cavell (1990) notes that in the abstract, researchers appear to agree that social

competence is best conceptualized as effective functioning in social situations. The disagreement occurs in operationalizing the construct.

According to Cavell (1990), attempts at operationalizing social competence can be divided into three approaches: (a) global appraisal of the results of social competence, (b) the component skills of social functioning, and (c) social performance. Global appraisals of the outcome of social competence include social accomplishments (e.g., employment, academic achievement), global indices (e.g., leadership, aggression, self-esteem), and peer acceptance. Currently, measures of peer status are the most widely used and accepted measures of social competence.

Researchers investigating social competence through the component skills considered requisite to effective functioning study encoding skills, decision skills, and enactment skills (Cavell, 1990). Encoding skills refer to the ability to interpret social information (e.g., problem definition, perspective-taking, attributions). The skills required to search a repertoire of possible responses and to select an effective response are referred to as decision skills. Enactment skills are composed of the ability to act on one's chosen response and monitor the outcome of that response. Although information concerning the component skills employed in socially competent functioning intuitively appears useful, empirical links between actual component skills and social competence have yet to be established.

Investigators of social performance conceptualize social competence as a holistic process that can be broken down into sequential steps. Measures of social functioning tend to be performance-based measures designed to assess typical performance rather than optimal, as these measures grew out of an interest in designing and evaluating social

skills interventions. Strategies for assessing social performance include rate of social interaction, range of social behaviors, and performance in critical situations. The frequency of social interaction is no longer considered a valid index of social competence as it has proven to be unrelated to other measures of social functioning. Assessing the presence of specific social behaviors in a child's repertoire grew out of the need to evaluate the effects of social skills training. For example, the presence of prosocial behaviors may be measured before and after an intervention. Unfortunately, the behaviors chosen to monitor are frequently rationally selected and the relationship between such behaviors as giving compliments, assertiveness, and playing cooperatively, and social competence is unknown. Finally, the strategy of analyzing performance in relevant tasks focuses on the context in which behaviors occur. This approach looks at behavior in a single situation (e.g., peer group entry task) or a range of specific situations. In order to identify relevant social tasks and determine the criteria for evaluating performance within these situations, researchers often use Goldfried and D'Zurilla's (1969) behavior-analytic model of assessing competence. The Goldfried and D'Zurilla model advocates the empirical identification of a range of difficult situations. The model then outlines a system of gathering a range of responses to the relevant situations and judging those responses for effectiveness. An individual's responses are then compared to the responses of his or her peers in determining competence.

Traditional vs. Behavioral Approaches to Assessing Competence

The Goldfried and D'Zurilla model was designed in direct contrast to the more traditional approach that viewed competence as an underlying personality trait that could be tapped through personality assessment devices (Goldfried & D'Zurilla, 1969). Under

the traditional rubric, competence is considered to be a relatively enduring pattern of behaviors that remain consistent across a variety of situations. Behavior is assumed to be stable across time and context (Epstein, 1979). Thus to define competence, researchers following the traditional approach would investigate the characteristics associated with a competent personality. Generally, these measures would be global assessments of trait-like constructs (e.g., assertiveness, problem-solving).

The behavioral movement targeted two areas of weakness in the traditional approach: (a) the importance of the situation was overlooked and (b) the conceptual units of "personality" were not linked to specific observable behaviors (Goldfried & D'Zurilla, 1969). First, dissenters from the traditional view pointed out that behavior in one situation is often poorly related to the same behavior in another situation (Martin, 1988). As such, behavior appears to be more situationally determined than trait determined (Mischel, 1968). Therefore, behavioral theorists asserted that global assessments are an inappropriate means to assess competence. Second, behaviorists were troubled by the absence of clear observable data associated with personality traits, thus largely limiting personality assessment to self-report (Martin, 1988).

The behavioral view of competence focuses on the effectiveness of observable behavior in relevant situations. Under the behavioral definition, an individual's competence in one situation need not correlate with competence in another. For example, an adolescent may be assertive on the basketball court, but may be unable to be assertive in requesting a sexual partner to use birth control. In this way, competence is seen as existing along a continuum within situations. Thus, the behavioral conceptualization of competence dictates a methodology that can measure degrees of competence in specific

situations. The Goldfried and D’Zurilla model is decidedly behavioral in its situation-specific approach.

The Goldfried and D’Zurilla Model

The behavioral-analytic approach, thus named because it assesses behaviors and offers an empirically validated way to evaluate them, consists of five steps (see Table 1). The first step is situation analysis, or the collection and validation of all problematic situations with which a target population must cope. A “problematic situation” is defined as a situation that requires a behavioral decision. In other words, in a problematic situation, there is a low likelihood of automatically choosing an effective response. Consequent to situation collection is the validation of the amassed situations. In this second part of the first step, the exhaustive taxonomy is condensed to include only those situations that are sufficiently common and difficult. The second step is response enumeration, or the collection of all possible behavioral responses made by the target population to each situation. Following response enumeration is response evaluation. In this step, the responses to each situation are ranked in terms of effectiveness by expert judges. The expert judges are comprised of significant persons in the target population’s environment. The final two steps involve construction of the measure and validation of the measure.

The Goldfried and D’Zurilla (1969) model for assessing competence has been used to define effective behaviors in a variety of contexts and with several target populations including delinquent girls (Gaffney & McFall, 1981) and boys (Freedman, Rosenthal, Donahoe, Schlundt, & McFall, 1978), mildly mentally retarded workers (Bullis & Foss, 1986), aggressive and deviant children (Deluty, 1979; Dodge, Schlundt, Schocken, & Delugach, 1984), and the elderly (Edinberg, Karoly, & Gleser, 1977). The

Table 1

Steps in the Goldfried and D'Zurilla (1969) Behavioral-Analytic Model for Assessing Competence

Step	Description and Strategies
1. Situational Analysis	Taxonomy of all relevant situations. Obtained through detailed naturalistic observation, interviews with important observers, or self-report.
Situational Validation	Identification of high-frequency situations. Obtained through self-ratings or ratings-by-others.
2. Response Enumeration	Sampling of possible responses to each situation. Obtained through direct naturalistic observation, analogue situations, interview or questionnaire.
3. Response Evaluation	Determination of the degree of effectiveness for each response. Obtained through judgments made by individuals in direct contact with the target population.
4. Development of Measure	Application of collected data to compile critical situations and criteria for scoring responses on degree of effectiveness.
5. Evaluation of Measure	Validation of measure.

behavioral-analytic model has also been used to determine level of decision-making skills in heterosocial situations in college women (Goddard & McFall, 1992), assess social skill in adolescence (Cavell & Kelley, 1992), and to investigate social competence in severely emotionally disturbed adolescents (MacNeil & LeCroy, 1997). To examine further the necessary components of the Goldfried and D'Zurilla model, it is necessary to examine a few of the above studies in more detail (see Table 2).

The Inventory of Decisions, Evaluations, and Actions (IDEA; Goddard & McFall, 1992) is the result of an investigation of the relationship between the resolution of problematic heterosocial situations and an information-processing model of social competence and skills. In order to examine interpersonal problem-solving, the researchers were required to first develop a measure of heterosocial competence for college women composed of empirically, as opposed to rationally, derived situations. Goddard and McFall began by recruiting 26 undergraduate women to record all of their heterosocial interactions with college men in detailed diaries over 10 days. In addition, 50 college women provided 5 written examples each of difficult interpersonal situations with college men. The situational analysis yielded approximately 400 situations that were culled down to 107 unique situations. Each situation was then rated on a 4-point Likert scale on dimensions of commonness, difficulty, and importance in order to condense the initial list (e.g., not common = 1, very common = 4). The researchers retained 43 situations that obtained mean ratings over the midpoint on all three scales. In the response enumeration step, 22 college women listened to audiotaped situations and described what they would do in each situation. In order to evaluate the competence of

Table 2

Steps of the Goldfried and D'Zurilla Model as Applied in Goddard & McFall (1992), Cavell & Kelley (1992), and MacNeil & LeCroy (1997)

Step	Application
1. Situational Analysis	Diaries of interactions with college men, self-report survey (Goddard & McFall, 1992). Self-report survey (Cavell & Kelley, 1992). Focus groups (MacNeil & LeCroy, 1997).
Situational Validation	Ratings of each situation on dimensions of commonness, difficulty, and importance (Goddard & McFall, 1992). Ratings of each situation on frequency and difficulty (Cavell & Kelley, 1992). Ratings of each situation on frequency, difficulty, and importance (MacNeil & LeCroy, 1997).
2. Response Enumeration	Situations presented verbally, responses audiotaped (Goddard & McFall, 1992). Written survey (Cavell & Kelley, 1992). Situations presented verbally, responses audiotaped (MacNeil & LeCroy, 1997).
3. Response Evaluation	College males rated responses for competence (Goddard & McFall, 1992). Responses rated by adults familiar with adolescent behavior (Cavell & Kelley, 1992). Responses rated by treatment center staff (MacNeil & LeCroy, 1997).
4. Development of Measure	Measure presented orally, responses audiotaped and scored via coding manual based on males' ratings (Goddard & McFall, 1992). Questionnaire formed with critical situations and responses varying in effectiveness (Cavell & Kelley, 1992). Measure presented orally, responses scored according to manual based on judges' ratings (MacNeil & LeCroy, 1997).
5. Evaluation of Measure	Tested discriminative validity by comparing scores in the IDEA with previously identified competent and less competent college females (Goddard & McFall, 1992). Compared MASP scores with peer acceptance, friendship quality, self-ratings of parent-adolescent conflict, and teacher ratings of social behavior (Cavell & Kelley, 1992).

the generated responses, five college males rated each response on a 4-point Likert scale and described the criteria each had used in rating the responses. In developing the measure format, Goddard and McFall preserved 38 situations that (a) resulted in responses that were reliably rated (i.e., alpha coefficients were greater than .60) and (b) elicited responses in a range of levels of effectiveness (i.e., at least 15% of responses were rated at the extremes of the Likert scale). A scoring manual was constructed that described the criteria for 1-, 2-, 3-, and 4-point responses to each problematic situation.

In order to validate the IDEA, 674 women were classified by their female peers as above average, average or below average in solving difficult social situations with college men. Fifty-two women identified as above average or below average completed the IDEA. Two judges who were unaware of the sociometric rankings scored the responses to the IDEA. Those women classified as above average in solving social problems with college males obtained significantly higher scores on the IDEA than women classified as below average. In addition to the discriminative value of the IDEA, the researchers also reported that above average participants were more socially active and rated as more attractive, both evidence for convergent validity of the measure.

The development of the IDEA carefully follows the Goldfried and D'Zurilla behavioral-analytic model; however, some steps in the procedure could have been strengthened. For example, in the first step, Goddard and McFall limited their participants to the identification of only five problematic heterosocial situations. As the goal of the situational analysis is the collection of an exhaustive taxonomy of problematic situations, it is possible that some situations may have been overlooked. Similarly, only 22 women participated in the response enumeration phase. Considering that similar

studies have gathered more than 22 responses for each social situation (e.g., Cavell & Kelley, 1992), it is possible that some potential responses may have been left out of the analysis.

In response to the scarcity of reliable and valid measures for adolescent social competence, Cavell and Kelley (1992) developed the Measure of Adolescent Social Performance (MASP). Following the Goldfried and D'Zurilla model, the researchers first obtained a large collection of situations by administering an open-ended survey to 271 adolescents. The questionnaire asked participants to write down difficult situations that involved personal issues, family, friends, school, or job. Over 4,000 situations were collected and then condensed to 157 individual situations. A second sample of 604 teens rated each of the 157 situations on 5-point Likert scales of frequency and difficulty. Each situation chosen for inclusion on the MASP, obtained a median frequency score of at least 2, and a median difficulty score of at least 3. At the end of the situational analysis and validation, the researchers preserved 54 items. In the response enumeration phase, 154 adolescents were asked to complete a written survey asking what they would do in each situation. After eliminating redundant responses, each situation elicited an average of 37 responses. The researchers recruited 57 adults (e.g., parents, teachers, psychologists, probation officers) to participate in the response evaluation phase. Judges rated responses on a 5-point Likert scale of competence. An attempt was made to match judges with the appropriate situations. For example, parents rated home situations and teachers rated school situations. The final version of the MASP is a self-report scale containing 50 problematic social situations and 4 responses for each situation. In

developing the MASP format, Cavell and Kelley selected reliably rated responses, and included responses that varied in rated effectiveness.

Cavell and Kelley (1992) investigated the validity of the MASP in two related studies. In their first study, 598 adolescents completed the MASP and a measure of parent-adolescent conflict. The researchers also collected teacher ratings of peer acceptance. A subset of participants completed the MASP for the second time after a two-week interval. Results suggest that the MASP has adequate internal consistency ($\alpha = .87$) and test-retest reliability ($r = .82$). Those individuals who obtained high MASP scores tended to report significantly less parent-adolescent conflict. However, teacher reports of peer acceptance proved to be unrelated to the MASP scores. In their second study, Cavell and Kelley compared performance on the MASP to a measure of self-competence that included social, academic, behavior, physical, and appearance domains; a teacher rating scale that included the same domains of assessment; as well as a measure of friendship quality. Results indicated that teens who endorsed more socially competent responses on the MASP rated themselves as significantly more well behaved and academically competent. In addition, the same teens reported higher levels of global self-worth and their teachers rated them more well behaved, academically competent, and physically attractive. Finally, MASP scores were significantly related to measures of friendship quality. More specifically, highly socially competent adolescents were more likely to endorse less conflict, more intimacy, and more companionship in their friendships.

The MASP is a carefully constructed measure of adolescent general social competence. Each step of the Goldfried and D'Zurilla model was closely followed and

thoroughly executed. The initial validation studies support the accuracy of the MASP in measuring general social competence in adolescence and also reveal important information regarding the construct of social competence in adolescence. For example, it appears that social competence is related to academic competence, friendship quality, and estimates of global self-worth. Moreover, the MASP was unrelated to participant race and socioeconomic status. In summary, the MASP appears to be a valuable measure of adolescent general social competence.

The Seriously Emotionally Disturbed Adolescent Social Competence Inventory (SEDASCI) was designed to gather data that could inform the development of empirically based social skills interventions for seriously emotionally disturbed (SED) adolescents (MacNeil & LeCroy, 1997). In behavioral-analytic fashion, the researchers began by collecting problematic social situations encountered by their target population. Twelve focus groups consisting of either treatment facility staff members, SED youth, or their families generated 140 situations (106 after eliminating for redundancy). Each situation was then rated by 33 SED adolescents on dimensions of frequency, difficulty, and importance of the situation. Minimal inclusion criteria for each situation were set at an average score of 2.5 on frequency, and a 3 on either the difficulty or importance scales (all scales were 5-point Likert scales). The results of the situational analysis and validation indicated 40 items met the inclusion criteria. To fulfill the response enumeration step of the Goldfried and D'Zurilla model, 36 SED adolescents agreed to participate in an oral question and answer survey to generate responses to each situation. Each situation elicited from 10 to 24 responses. Ten treatment center staff members were selected to evaluate the competence of responses on 5-point Likert scales of competence.

The SEDASCI format and scoring manual were created using the above data.

Respondents must imagine themselves in 42 problem situations and either write or orally report what they would do in each situation.

In developing the SEDASCI, MacNeil and LeCroy completed the first four steps of the Goldfried and D’Zurilla (1969) model. In fact, the most glaring oversight in the development of the SEDASCI is the lack of the fifth step, or any initial validation of the measure. The final step is necessary to ensure that the measure actually assesses what the researchers purport it to assess.

Overview: Defining Adolescent Heterosocial Competence

The goal of the following studies was to complete the process of defining the different dimensions of heterosocial competence by following the steps outlined by the seminal work of Goldfried and D’Zurilla (1969). The behavioral-analytic model for defining competence consists of five steps that lead to the validation of a measure. The first step was to identify an exhaustive taxonomy of critical situations, or situations that have a low probability of an “automatic” response. Once these situations were identified, the list was condensed to an index of the most common and difficult situations. The second step involved collecting the target populations’ responses to the critical situations. The selection of common situations ensured that the participants had a high likelihood of experiencing a similar situation in the past. The selection of difficult situations ensured a greater variability in the skill utilized in the formulation of the response. These responses were transcribed and distributed to a new population to be evaluated on a scale of perceived competence in the third step. This “expert” population was composed of researchers in the field of adolescent peer relations and professionals working with

adolescents. The fourth step entailed the construction of the measure of competence and a scoring manual. Finally, the finished measure was evaluated for reliability and validity.

Step 1: Situational Analysis

In a systematic series of studies adhering to the Goldfried and D’Zurilla framework, a situational analysis has recently been completed. The resulting situations were gathered in two separate studies. The first, a focus group study, established that adolescents could identify a range of problematic heterosocial situations (Grover & Nangle, in press). The second situational analysis study used an open-ended self-report format to extend the situation collection to a larger population (Grover, Zeff, White, & Nangle, 2001).

Focus group study. Focus group methodology, originally used in market research, is increasingly being used in psychological research as a means of generating hypotheses, developing survey questions, and interpreting data (Hoppe, Wells, Morrison, Gillmore, & Wilsdon, 1995). Focus groups can elicit more information than can be obtained in one-on-one interviews due to the opportunity for interaction with peers (Ward, Bertrand, & Brown, 1991). It is recommended that focus groups consist of five to eight same-sex target individuals and two trained facilitators. One facilitator follows a script designed to lead discussion to cover the research goals, at the same time remaining flexible enough to allow for group directed discussion. The second facilitator is responsible for tape recording the group and taking notes on nonverbal reactions of focus group members. Focus groups have been used to gather information from adolescents on a variety of sensitive topics including stress and coping (Mates & Allison, 1992); perceptions of

sexual behaviors (Stanton, Black, Kaljee, & Ricardo 1993); and expectations of, and reactions to, sexual aggression (Nurius, Norris, Dimeff, & Graham, 1996).

Grover and Nangle (in press) began the process of defining different dimensions of adolescent heterosocial competence by obtaining a survey of critical situations using a focus group methodology. Adolescents ($N = 58$) ranging in age from 14 to 19 ($M = 16.5$) years participated in 10 (five male and five female) same-sex focus groups of approximately one hour each. Responses were audiotaped and transcribed. Two graduate students and one advanced undergraduate research assistant engaged separately in the rigorous task of coding the focus group transcripts into emergent categories or themes. The researchers then met to discuss their findings and reach a consensus regarding the dominant themes identified in the responses.

Both male and female participant responses included situations involving general conversations with the other sex (General Communication; see Table 3 for categories and exemplars); interactions initiating a friendship or relationship (Initiating a Friendship or Relationship); interactions with friends of the opposite sex (Friendship); interactions that occur on a date (Dating: The Activity); interactions within a dating relationship (Dating/Relationships); and interactions surrounding sexual contact (Sexual Situations). Interestingly, both male and female participants also indicated that situations involving working with the other sex in the classroom or workplace (Working with Each Other) and situations involving alcohol and/or drugs (Drugs and Alcohol) were problematic. Finally, both male and female participant responses included discussions of threatening situations (Harassment/Criminal Situations).

Table 3

Categories and Exemplars of Problematic Heterosocial Situations Generated from Both Male and Female Responses

Category	Exemplars
<u>General Communication:</u> Situations surrounding conversation.	Talking on the phone would be the hardest; It is hard to talk to a guy when they are with their friends; You don't want to say the wrong thing.
<u>Initiating a Friendship/Relationship:</u> Situations at the start of a new friendship or relationship.	Like telling them if you like them and then you want to know if they like you back; Asking a girl or guy out; One of my friends doesn't dare talk to girls he is interested in for fear of rejection.
<u>Friendships:</u> Situations that specifically mention friendships.	When your guy friend isn't treating his girlfriend right; When one friend is interested in a relationship and the other is not; When a girl friend wants to hook up with a guy you know bad stuff about.
<u>Dating (the Activity):</u> Situations that occur on a date.	Where to go; Who pays; First date is the most nervous; Not sure how to end a date.
<u>Dating Relationships:</u> Situations that occur within a dating relationship, excluding sexual situations.	Jealousy is a big problem; Hard to talk about things like if you need your space; Hard to break up with someone; Discussing commitment; Hard to trust people.
<u>Sexual Situations:</u> Situations surrounding sexual contact.	Talking about STDs; Deciding who buys the condoms; What if he doesn't want to wear a condom; Having the when-to-stop conversation.
<u>Drugs and Alcohol:</u> Situations that involve alcohol or other drugs.	When guys are drinking they get touchy-feely; Drugs can be a turn-off; When you get ditched for drugs or alcohol.
<u>Working with Each Other:</u> Situations that involve working together including school situations.	Having a boss/teacher of the other sex; Being on a co-ed team; Being paired for a class project with a boy who is really popular; Someone at work asks you out and you want to say no.
<u>Harassment/Criminal Situations:</u> Situations that could be interpreted as harassment or a crime.	When guys talk about female body parts in front of me; Rape; Worry about what counts as sexual harassment.

Problematic heterosocial situations in adolescence study. A list of problematic situations, or situations that have a low probability of eliciting an “automatic” response constitutes the situational analysis phase of the behavioral-analytic model. A taxonomy of critical situations provides the foundation for the development of a measure that includes empirically derived situations. One hundred and fifty high school students (83 females, 67 males) ranging in age from 14 to 19 ($M = 16.13$) were recruited to participate from three high schools in the state of Maine (South Portland High School, Bucksport High School, and Maine Central Institute). Participants completed a survey that required them to write down as many difficult situations with the other sex that they could in one-hour. The questionnaire was divided into four sections: free response, situations in the workplace or classroom, situations with friends, and situations related to dating. Participants generated over 2,500 total responses. These responses were then edited for redundancy and clarity resulting in a final list of over 550 problematic heterosocial situations. Two graduate students and one advanced research assistant engaged separately in the rigorous task of sorting the complete set of situations into emergent categories or themes. The researchers then met to discuss their findings and reach a consensus regarding the dominant themes identified in the responses. The end product of this extensive analysis was a taxonomy of problematic heterosocial situations in a high school population.

Both male and female participant responses included situations involved in initial interactions with the other sex (Meeting and Greeting; see Table 4 for categories and exemplars); interactions following introduction and preceding a relationship (Establishing

Table 4

Categories and Exemplars of Problematic Heterosocial Situations Reported by Teens

Category	Exemplars
<u>Meeting and Greeting:</u> Situations surrounding initial interactions.	Meeting someone for the first time; Approaching an attractive person of the other sex.
<u>Initiating a Friendship/Relationship:</u> situations at the start of a new friendship or relationship.	Talking to a member of the other sex that you don't know that well; Calling someone that you like.
<u>Friendships:</u> Situations that include other-sex friendships.	Helping a friend deal with a personal problem; Discussing significant others with other-sex friends; Uncomfortable when a friend hugs me.
<u>Dating:</u> Situations that surround dating.	Asking for a date; Getting rejected; Turning down a date; Where to go; Keeping conversation going.
<u>Dating Relationships:</u> Situations that occur within a dating relationship, excluding sexual situations.	Discussing feelings; Talking about the relationship; Jealousy; Meeting your partner's family or friends; Breaking up.
<u>Sexual Situations:</u> Situations surrounding sexual contact.	Talking about sex; Refusing sexual contact; Discussing contraception; Discussing pregnancy.
<u>Work Situations:</u> Situations that involve working together.	Having a boss of the other sex; Working alone with a person of the other sex; Being asked out by someone at work and wanting to refuse.
<u>School Situations:</u> Situations that occur in school.	Having a teacher of the other sex; Speaking in class in front of the other sex; Disagreements in class.
<u>Health Issues:</u> Situations regarding health issues.	Discussing menstruation; Having a doctor of the other sex.
<u>Group Dynamics:</u> Situations that include a group of the other sex.	Talking to a group of the other sex; Being the only female (or male) in a group.
<u>Drugs and Alcohol:</u> Situations that involve alcohol/drugs.	Being asked to drink; Pressure to do drugs; Physical contact when under the influence.
<u>Harassment/Abusive Situations:</u> Situations that could be interpreted harassment or a crime.	Pressure to have sex; Unwanted touches; Sexual comments or gestures at work; Fear of being accused of sexual harassment.

a Friendship or Relationship); interactions with friends of the other sex (Friendship); interactions surrounding dating (Dating); interactions within a dating relationship (Issues within a Dating Relationship); and interactions surrounding sexual activity (Sexual Subjects). Both male and female participants also indicated that certain situations that occur at work and at school (Work Situations, School Situations) and those associated with health issues (Health Issues) were problematic. In addition, all participants endorsed as problematic situations involving groups of the other sex (Group Dynamics); drinking or drug use (Drinking/Drugs); and harassment or abusive situations (Harassment/Abusive Situations).

The Focus Group Study, combined with the Problematic Heterosocial Situations in Adolescence Study, comprise the situational analysis step of the Goldfried and D'Zurilla (1969) model. The two studies generated similar results, with the written survey eliciting more discrete situations and the focus groups recording more detail surrounding those situations. Participating adolescents endorsed a wider range of problematic situations in the written survey as opposed to the focus groups, most likely due to the increased confidentiality and the increased time for individual input on the written survey. Situations collected in the situational analysis were included in the situational validation described below.

Step 1 Continued: Situational Validation

The first study validated the situations obtained in the two studies described above (see Tables 3 and 4 for an overview of specific situations). A new population of approximately 200 high school students responded to each situation on two scales. The first scale required the participants to rate how common he or she felt each situation to be

for teenagers in general. The second scale asked the participants to rate the difficulty of the described heterosocial situation. Situations that were rated as both common and difficult were considered to be critical situations in determining competence. This process was designed to eliminate those situations that are either relatively rare or are likely to elicit an automatic social response. Only those items that met a set criterion of both commonness and difficulty were preserved for the next study.

Step 2: Response Enumeration

The second study corresponded with Step 2 of the Goldfried and D'Zurilla model (See Table 2). In order to obtain a sampling of possible responses to each situation, a questionnaire was administered to approximately 150 high-school students that asked them to consider each situation and respond with what they think they would actually do and say in that situation. All responses were transcribed and organized into comprehensive lists of obtained responses for each situation. The final lists of responses were used in the next study.

Step 3: Response Evaluation and Development of a Measurement Format

The goal of Step 3 of the behavioral-analytic model is to determine the relative effectiveness of each response to the list of critical situations. According to Goldfried and D'Zurilla (1969) and numerous researchers following their model, effectiveness is determined through judgments made by people in direct contact with the target population. Some researchers have attempted to have the target population rate the responses for effectiveness with mixed results. For example, adolescent-generated scoring criteria has failed to discriminate between delinquent and nondelinquent control subjects (Gaffney & McFall, 1981). Therefore, responses in this study were judged for

competence by adult expert judges (see Cavell & Kelley, 1992, and Gaffney & McFall, 1981). Participants were adults familiar with adolescent heterosocial behavior. Judges included teachers, clinical psychologists, professors researching adolescent development, social workers, and health care providers. All judges worked with adolescents or had special training in adolescent psychology.

The data from the first three studies were used to construct a measure of adolescent heterosocial competence. The final measure was a 40-item multiple-choice survey with each item presenting a problematic situation paired with four potential behavioral responses. The responses were selected to represent varying degrees of effectiveness as rated by the expert judges. Teens were asked to select the item that matches most closely what they would do and say in each situation.

Step 4: Evaluation of the Measure

After construction of the measure format, the final step required that the measure be evaluated for reliability and validity. The validation of a measure is an ongoing process; therefore, the goal of this phase was to begin an investigation of the construct of heterosocial competence using a multitrait-multimethod (MTMM) matrix approach. In determining the construct validity of a measure, evidence of both convergent and discriminant validity is necessary (Foster & Cone, 1995). In order to be confident that the new measure assesses a specific construct, it must correlate with measures that assess the same construct (i.e., convergent validity) and not correlate with measures that assess conceptually unrelated constructs (i.e., discriminant validity). An MTMM matrix strategy is the most often used approach for considering both aspects of validity at the same time (Foster & Cone, 1995).

The MTMM matrix is a table of correlations comparing measures of both theoretically convergent and discriminant constructs (i.e., multi-trait) assessed in at least two different ways (i.e., multi-method) (Campbell & Fiske, 1959). The goal of a construct validation is to determine the unique variance accounted for by the target measure. The utilization of more than one maximally different assessment method (e.g., self-report, rating scale, behavioral observation) enables the researcher to control for common method variance. Therefore, the strongest evidence for convergent validity is a correlation between measures that assess the same construct through maximally different means (Campbell & Fiske, 1959). Evidence for discriminant validity is provided by non-significant correlations between measures of different constructs. The resulting correlation matrix allows the researcher to evaluate the construct represented by the measure in question by systematically comparing its relation to the other measures. Specifically, Campbell and Fiske (1959) recommend considering the following (a) the correlations between assessments of the same construct by different methods should be significant, and (b) these correlations should be stronger than the correlations between assessments of different constructs. As *a priori* hypotheses, the researcher develops a theoretical network, or prediction of the pattern and strength of the expected correlations (Cronbach & Meehl, 1955; Foster & Cone, 1995).

Unfortunately, there is currently no existing measure of adolescent heterosocial competence with which this new measure may be compared to support the contention of convergent validity. Foster and Cone (1995) note that this phenomenon most often occurs “when a new measure is most needed” (p. 250). Therefore, the measures chosen to support convergent validity in the MTMM represent theoretically related, but different

constructs. For example, peer ratings of acceptance were included in the matrix as a maximally different method of measuring general social competence. Three additional measures were included as indices of convergent validity, albeit using the same method as the Measure of Adolescent Heterosocial Competence (MAHC). The first measures general adolescent social competence and the second assesses adolescent conflict within dating relationships. The third self-report scale measures anxiety in heterosocial situations. It was hypothesized that the MAHC would correlate positively with the measures of acceptance and general social competence and negatively with the measure of conflict in adolescent dating relationships. In addition, it was expected that the MAHC would correlate negatively with the measure of heterosocial anxiety.

Selection of a theoretically unrelated measure was difficult as numerous items are empirically related to social competence (e.g., academic achievement, depression, acting in socially desirable ways) (Hartup, 1983; Savin-Williams & Berndt, 1990; Vernberg, 1990). Foster and Cone (1995) suggest that certain pervasive variables (e.g., intelligence, socioeconomic status, socially desirable responding) should always be investigated as discriminant variables. Therefore, a measure of socioeconomic status was included as a discriminant measure. Moreover, in a recent study, socioeconomic status failed to significantly correlate with a measure of general social competence (Cavell & Kelley, 1992).

According to Campbell and Fiske (1959), the correlations among the measures of convergent validity (i.e., MAHC, peer acceptance, general social competence, conflict in relationships, and heterosocial anxiety) should be statistically significant. The correlations between different trait measures (e.g., MAHC, socioeconomic status) should

be nonsignificant. In addition, a priori hypotheses expected that the relationship among the convergent validities should fall according to specificity. That is, the correlation between the MAHC and conflict in adolescent relationships would be strongest, with the correlations between the MAHC and heterosocial anxiety, general social competence, and peer acceptance following in that order.

CHAPTER 2: METHOD AND RESULTS

As reviewed above, the development and initial validation of the Measure of Adolescent Heterosocial Competence follows the procedures outlined in the seminal Goldfried and D’Zurilla (1969) model. As such, this section outlines the methods and results for four independent studies paralleling the stages of the model. These studies build upon an already constructed taxonomy of problematic situations that comprise the first of two required elements of the *situational analysis* step of the model. In completing this first step, Study 1 obtained commonness and difficulty ratings on the large range of situations collected earlier. This step helped to ensure that situations retained for the resulting measure were those that occurred with some frequency and represented a behavioral dilemma. Corresponding with the *response enumeration* step, Study 2 required participants to imagine themselves in difficult heterosocial situations and to record what they would do or say in each situation. In this way, a sampling of possible responses to each situation was collected for potential response items on the resulting measure. Study 3 combined the *response evaluation* and *development of measurement format* steps as expert judges rated the effectiveness of obtained responses to the critical situations and those situations were paired with representative response items to create a measure. Finally, the *evaluation of the measure* step is begun in Study 4. First, the measure was analyzed for internal consistency and factor analyzed to investigate possible underlying latent dimensions. Then, employing the multitrait-multimethod matrix approach, the resulting measure was compared to measures of both theoretically related and unrelated constructs (Campbell & Fiske, 1959).

Study 1: Situational Validation

Participants

Participants were 198 adolescent males and females (135 females and 63 males) recruited from local high schools. A letter was sent to high school principals asking for their participation in the project. After obtaining approval from the principal, consent forms were distributed to students by their teachers to be signed by their parent/guardian. Students under the age of 18 were required to return a signed consent form in order to participate. Students 18 years of age or older were given the option of signing their own informed consent form. Only those adolescents with consent to participate were included in the study. In addition to providing an informed consent form signed by a parent or guardian (see Appendix A), participants were asked to give individual verbal assent of willingness to engage in the research study prior to distribution of the survey (see Appendix B). Participants were told that if they encountered any questions they felt uncomfortable answering, they could cross them out. Furthermore, participants were informed of their right to terminate participation at any time without any adverse consequences.

Procedure

The data were collected in single one-hour sessions conducted in classrooms of participating high schools during the Fall 2000 semester. High-school students were asked to read and respond to vignettes describing heterosocial situations on two Likert-type scales. The first scale asked the participant to rate how common he or she felt the situation was for adolescents in general. The second scale asked the participant to rate how difficult each situation would be to successfully negotiate (see Appendix C).

Participants were provided with manila folders to use to keep their responses to the survey questions private. Participants were also given a debriefing sheet with the name of a staff person at their school and a list of local resources they could contact in the event they experienced distress or discomfort as a result of being in the study (see Appendix D). The primary investigator ran the study with assistance from trained graduate and undergraduate students. A similar study, using the same situational validation procedure was piloted with a college student population (Grover, Nangle, & Carpenter, 1999; Grover, Nangle, & Zeff, 2000).

Measures

Demographics Survey. A brief personal information sheet was included at the end of the questionnaire to gather descriptive information about the participating population (see Appendix E). Participants were asked their age, race, whether or not they were dating at the time of the study, whether they had ever engaged in sexual intercourse, and, if so, their age at first sexual intercourse.

Situational Validation Questionnaire. The Situational Validation Questionnaire required that teens rate heterosocial situations on two Likert-type scales. The first scale asked the participant to rate how common the situation was for adolescents in general. The second scale asked the participant to rate how difficult each situation was to successfully negotiate (e.g., Cavell & Kelley, 1992; MacNeil & LeCroy, 1997). For example:

1. Meeting someone of the other sex for the first time.

How common do you feel this situation is for people your age?

1	2	3	4	5
not common				very common

If you were in this situation, how difficult would it be for you to handle?

1	2	3	4	5
not difficult				very difficult

Results

Responses were analyzed by computing mean scores for both commonness and difficulty. First, the data were examined for differences in ratings by gender. Both commonness and difficulty ratings correlated highly between males and females ($r = .87$, $p < .001$ for commonness; $r = .88$, $p < .001$ for difficulty). Due to the similarity in ratings, data were collapsed across gender. Those responses that were rated as occurring more frequently (above the mean commonness score, $M = 3.3$) and rated as more problematic for the population (above the mean difficulty score, $M = 2.65$) were considered for use in the next study. Following this procedure, only twelve situations obtained above the average ratings on both commonness and difficulty. Therefore, an alternate strategy was used to identify possible critical situations. As in similar investigations, a cutoff point below the mean was selected (for a similar approach see Cavell & Kelley, 1992). Only those situations rated consistently as occurring more frequently (above a 3 on the frequency scale) and rated as more problematic for the population (above a 2 on the difficulty scale) were considered critical situations. A total of 63 situations met criteria for consideration for the next study.

Demographics. Participants ranged from 14 to 19 years of age ($M = 16.7$, $SD = 1.19$). The participant sample was predominately Caucasian (95.7%). A few participants stated they were African American (2.2%). Similar to reported rates in the adolescent dating literature, just over half (55.4%) of the respondents reported being in a dating

relationship at the time of the survey (e.g., Connolly, Furman, & Konarski, 2000). The majority indicated engaging in sexual intercourse at least once (63.5%). Age of sexual debut ranged from 12 to 18 years of age ($M = 15.1$, $SD = 1.40$). The percentage of sexually active teens and age at sexual debut in this sample fall within the range reported in other investigations of adolescent sexual activity (e.g., Hogan, Sun, & Cornwell, 2000; Santelli, Lowry, Brener, & Robin, 2000). A chi-square analysis yielded no differential pattern between gender and dating, $\chi^2(1, N = 195) = 1.33$, $p = .25$; gender and report of sexual intercourse, $\chi^2(1, N = 192) = 2.13$, $p = .15$; or gender and age at first sexual intercourse, $\chi^2(6, N = 122) = 10.63$, $p = .10$. Similarly, chi-square analysis yielded no differential pattern between current dating status and age at first sexual intercourse, $\chi^2(6, N = 120) = 6.29$, $p = .39$. There was a significant relationship between dating status and report of sexual intercourse with those participants who indicated a current dating relationship more likely to indicate engaging in sexual intercourse, $\chi^2(1, N = 190) = 31.94$, $p < .001$. Older participants were more likely to be engaged in a dating relationship, $\chi^2(5, N = 195) = 13.04$, $p < .05$, and were more likely to report sexual intercourse, $\chi^2(5, N = 191) = 22.33$, $p < .001$.

Critical situations. Both male and female participant responses included situations involved in initial interactions with the other sex (See Table 5); interactions following introduction and preceding a relationship; interactions with friends of the other sex; interactions surrounding asking for a date and those occurring on a date; interactions within a dating relationship; and interactions surrounding sexual contact. Other common and difficult situations were categorized as interactions involving working or engaging in school activities; interactions with a group of members of the other sex; interactions

Table 5

Heterosocial Situations Rated as Both Most Common and Most Difficult by Male and Female High School Students

Category	Situations Rated as Most Common and Most Difficult
<u>First Meeting Situations:</u>	Meeting a boy for the first time; Introducing yourself to a boy for the first time; Being introduced to a boy for the first time; Talking to a boy for the first time in person; Talking to a boy for the first time on the phone; Approaching a boy; Starting a conversation with a boy that you don't know well.
<u>Situations that Follow First Meetings:</u>	Calling someone you are interested in; Starting conversations with boys; Keeping conversations going with boys; Ending a conversation with a boy; Telling a boy you are interested in a friendship; Telling a boy you are interested in a relationship; Finding out if the boy is interested in you; Asking a boy for his phone number.
<u>Friendship Situations:</u>	Talking about personal problems; Sharing secrets; Talking about sex; Your friend is jealous of the time you spend with your boyfriend; Disagreeing with a friend; Arguing with a friend; Being introduced to your friend's parents; Your friend likes you as more than a friend and you are not interested; You like your friend as more than a friend and he is not interested; Peer pressure from a friend.
<u>Dating Situations:</u>	Asking a boy out on a date; Being asked out on a date; Keeping conversation going on a date; Going out with his friends; Giving a goodnight kiss at the end of the date; Deciding when to end the date.
<u>Dating Relationship Situations:</u>	Meeting your boyfriend's family; Talking about past relationships with your boyfriend; Sharing your feelings with your boyfriend; Getting your boyfriend to talk about his feelings; Telling your boyfriend you love him; Talking about the future of your relationship; Talking about commitment; Arguing with your boyfriend; Telling your boyfriend you want to break up; You are jealous of the time your boyfriend spends with other people; Trying to be friends with your ex-boyfriend.
<u>Sexual Situations:</u>	Bringing up the topic of sex with a boyfriend; Telling a boyfriend what you will and won't do sexually; Talking about what kind of birth control to use; Talking about sexually transmitted diseases.
<u>Work Situations:</u>	Working in a small space with a boy; Working with a boy you don't know well.

<u>School Situations:</u>	Being alone with a male teacher; Speaking in class in front of boys; When a boy asks to cheat off of your paper; Competing with boys in gym class.
<u>Group Situations:</u>	Talking to a boy when his friends are around; Being the only girl in a group of boys; Working with all boys.
<u>Health Situations:</u>	Talking to a male doctor.
<u>Drinking and Drug Situations:</u>	Being asked to drink by a boy; Being asked to do drugs by a boy; Drinking with boys; Doing drugs with boys; Making-out with someone when drinking or doing drugs.
<u>Harassment Situations:</u>	Sexual remarks at work or school; Sexual gestures at work or school.

surrounding health related discussions; interactions surrounding drinking or drugs; and interactions related to sexual harassment.

Study 2: Response Enumeration

Participants

Participants were 157 adolescent males and females (71 males and 86 females) recruited from local high schools. Teens were recruited through participating high schools. A letter was sent to high school principals asking for their participation in the project. After obtaining approval from the principal, consent forms were distributed to students by their teachers to be signed by their parent/guardian. Only those adolescents with consent to participate were included in the study. In addition to providing an informed consent form signed by a parent or guardian (see Appendix F), participants were asked to give individual verbal assent of willingness to engage in the research study prior to distribution of the survey (see Appendix G). During the session, participants were told that if they encountered any questions they felt uncomfortable answering, they could cross them out. Furthermore, participants were informed of their right to end participation at any time without any adverse consequences.

Procedure

The data was collected in single one-hour sessions conducted in participating classrooms during the Fall 2000 semester. During the study, high school students were asked to imagine themselves in vignettes describing difficult heterosocial situations and to write down what they think they would say and do in response to each situation (See Appendix H). Participants were provided with a manila folder to use to keep their responses to the survey questions private. Participants were also given a debriefing sheet

with the name of a staff person at their school and a list of local resources they could contact in the event they experienced distress or discomfort as a result of being in the study (see Appendix I). The primary investigator ran the project with the assistance of trained graduate and undergraduate students.

Measures

Demographics Survey. A brief personal information sheet was included at the end of the questionnaire to gather descriptive information about the participating population (see Appendix J). Participants were asked their age, race, whether or not they were currently dating, whether they had ever engaged in sexual intercourse, and, if so, age at first sexual intercourse.

Response Enumeration Questionnaire. The Response Enumeration Questionnaire was created using critical situations identified in the previous study. Each relevant situation was developed into a brief vignette with the help of a small group of 18 and 19 year old adolescents (undergraduate research assistants). Each vignette was then evaluated for clarity and representativeness of the initial relevant situation. The Situational Validation step yielded 63 relevant situations. In developing the Response Enumeration Questionnaire, this number was reduced to 44 due to redundancy among the situations. For instance, the situations, "Meeting a boy for the first time," and "Introducing yourself to a boy for the first time" were combined into one vignette. Similarly, "Disagreeing with a friend" and "Arguing with a friend," became one vignette. Participants were asked to read and respond to each vignette by writing down what they would do and say in response to the vignette.

For example:

For males:

1. There is a new girl in your math class. The teacher assigns her a seat near you. You would like to introduce yourself. What would you do and say?

For females:

1. There is a new guy in your math class. The teacher assigns him a seat near you. You would like to introduce yourself. What would you do and say?

Results

Demographics. Participants ranged from 14 to 19 years of age ($M = 16.0$, $SD = 1.43$). The participant sample was predominately Caucasian (90.4%). Minority participants rated themselves as Native American (0.6%), Latino (1.9%), and Other (7%). Similar to reported rates in the adolescent dating literature, just over half (55.4%) of the respondents reported being in a dating relationship at the time of the survey (e.g., Connolly, Furman, & Konarski, 2000). The majority indicated engaging in sexual intercourse at least once (63.5%). The percentage of sexually active teens and age at sexual debut in this sample fall within the range reported in other investigations of adolescent sexual activity (e.g., Hogan, Sun, & Cornwell, 2000; Santelli, Lowry, Brener, & Robin, 2000). Age of sexual debut ranged from 12 to 18 years of age ($M = 15.1$, $SD = 1.94$). Females were significantly more likely to report being in a dating relationship, $\chi^2(1, N = 155) = 4.78$, $p < .05$. However, no gender differences were observed for report of sexual intercourse, $\chi^2(1, N = 151) = .082$, $p = .78$, or age at sexual debut, $\chi^2(6, N = 72) = 4.72$, $p = .58$. Those who reported being in a dating relationship at the time of the study were significantly more likely to report engaging in sexual intercourse at one time, $\chi^2(1, N = 150) = 20.94$, $p < .001$. All ages were equally likely to report being in a dating

relationship, $\chi^2(5, N = 154) = 6.08, p = .30$; however, older participants were more likely to report sexual intercourse, $\chi^2(1, N = 150) = 26.35, p < .001$.

Response Enumeration Questionnaire. Responses were qualitatively analyzed as follows. All responses were transcribed and organized into comprehensive lists of obtained responses for each situation. Responses were then edited for redundancy within each response list (Bullis & Foss, 1986; Cavell & Kelley, 1992). For example, if five participants indicated the same response to the same situation, only one response was preserved for the final list of responses for that situation. Thus, the final product yielded lists of possible responses generated for each heterosocial situation. The final lists of responses were used in the next study. Below is an example situation with the actual responses. The responses are combined between male and females and edited for redundancy.

1. There is a new guy in your math class. The teacher assigns him a seat near you. You would like to introduce yourself. What would you do?

Walk up to him and say, "Hi, my name is..."

I would say hi and tell him my name and ask him his.

I probably would tell a friend to talk to him instead of me.

I might just wait for him to speak to me.

I would say hello and see what happened from there.

Casually start talking to him, either starting with a question about what we are doing, or something either a friend of mine and I are talking about or maybe ask him where he used to go to school.

At first I wouldn't say too much just smile at him. I'd see what he acted like first before I said something just to see if he is easy going and all. I wouldn't want to talk to someone who's all uptight. But after a while, I'd just talk about the class and see what happens from there.

Hi, this class sucks. I wonder if we have any other classes together. Can I see your schedule?

I'd probably say hi and ask some general questions about her interests and hobbies and what she's like.

Ask her a question about math to strike up a conversation. If she digs me, she'll keep it going.

I would knock her pen off of her desk and then pick it up and say oops.

I would ask her name.

Hi, what is your name? Want to go on a date?

I would just approach her and wait for an opportunity to say something funny.

Study 3: Response Evaluation and Development of a Measurement Format

Participants

Responses were judged for competence by "expert" adult raters (see Cavell & Kelley, 1992; Gaffney & McFall). Nine professionals familiar with adolescent heterosocial behavior participated. Judges included teachers, health care workers, clinical psychologists, professors researching adolescent development, and social workers. All judges had experience working with adolescents and/or had special training in adolescent psychology. Judges were recruited by letter (see Appendix K) and a follow-up phone call to confirm participation.

Procedure

Judges were asked to rate each response on a 5-point Likert-type scale ranging from (1) incompetent to (5) very competent (the midpoint of the scale represented "somewhat competent"). Judges were provided with the following general definition of an effective response: A competent or effective response is one that solves the present problem, makes future problems of the same type less likely, and does not introduce any

new problems for the person (Cavell & Kelley, 1992; Gaffney & McFall, 1981). Due to the length of the Response Evaluation Survey, it was unrealistic for all judges to rate all responses. Therefore, judges were sent randomly selected portions of the questionnaire, with the purpose of obtaining at least 3 expert ratings per response (Cavell & Kelley, 1992).

Measures

Demographics Survey. A brief personal information sheet was included at the end of the questionnaire to gather descriptive information about the participating population (see Appendix L). Participants were asked their age, gender, race, professional title, and years spent working with or researching adolescents.

Response Evaluation Survey. The Response Evaluation Survey consisted of 44 vignettes from the previous study combined with the responses obtained for each heterosocial situation (number of unique responses elicited by each vignette ranged from 5 to 22). Participants were asked to judge each response for competence on a 5-point Likert-type scale ranging from (1) incompetent to (5) very competent. Below is an example of an actual vignette and a sampling of response items:

1. One day a girl you know asks you out on a date. You want to turn her down, but you don't want to hurt her feelings. What would you do and say?

- _____ Say, "Sorry, but I can't go."
- _____ I would go out on one date just so I wouldn't have to say no to her face.
- _____ Say, "I already have plans."
- _____ Say, "I don't like you like that."
- _____ I would tell her that I'm really not interested in dating right now, but that I value her friendship.
- _____ I would tell her I kind of like someone else and I'm sorry.
- _____ Say, "I'm sick."

Results

Demographics Survey. Judges included three psychology professors with expertise in adolescence, two high school teachers, one social worker placed in a local high school, and three health care providers (i.e., high school nurse, college nurse, and adolescent medicine doctor). All judges were Caucasian. Three of the judges were male (one teacher, the social worker, and one of the psychology professors). Age of participants ranged from 30 to 61 ($M = 43.11$, $SD = 9.41$). Years of experience working with adolescents ranged from 7 to 40 ($M = 18$, $SD = 10.94$).

Response Evaluation Survey. Judges' ratings were analyzed by computing mean and standard deviation scores for each response (e.g., Bullis & Foss, 1986; MacNeil & LeCroy, 1997). Standard deviation was used as a measure of agreement among the three competency scores (i.e., a lower standard deviation indicated higher inter-judge agreement). Below is the example situation with means and standard deviations (in parentheses) for each response.

1. There is a new guy in your math class. The teacher assigns him a seat near you. You would like to introduce yourself. What would you do?

Mean (SD)

5.00 (.00) Walk up to him and say, "Hi, my name is..."

5.00 (.00) I would say hi and tell him my name and ask him his.

1.33 (.58) I probably would tell a friend to talk to him instead of me.

1.33 (.58) I might just wait for him to speak to me.

3.33 (.58) I would say hello and see what happened from there.

4.33 (.58) Casually start talking to him, either starting with a question about what we are doing, or something either a friend of mine and I are talking about or maybe ask him where he used to go to school.

- 2.67 (.58) At first I wouldn't say too much just smile at him. I'd see what he acted like first before I said something just to see if he is easy going and all. I wouldn't want to talk to someone who's all uptight. But after a while, I'd just talk about the class and see what happens from there.
- 2.33 (.58) Hi, this class sucks. I wonder if we have any other classes together. Can I see your schedule?
- 4.33 (.58) I'd probably say hi and ask some general questions about her interests and hobbies and what she's like.
- 2.67 (.58) Ask her a question about math to strike up a conversation. If she digs me, she'll keep it going.
- 1.67 (1.15) I would knock her pen off of her desk and then pick it up and say oops.
- 4.00 (.00) I would ask her name.
- 2.00 (1.00) Hi, what is your name? Want to go on a date?
- 2.00 (.00) I would just approach her and wait for an opportunity to say something funny.

In selecting responses to include in the final measure, care was taken to select responses that had lower variability (higher agreement) among the judges' ratings. Using the mean competency rating, within situation responses were divided into quartiles to establish a most competent set of responses (top 25%), a least competent set of responses (bottom 25%), and two mid-range sets of competent responses (middle 50%) (MacNeil & LeCroy, 1997). In selecting the response items for the final measure, care was also taken to select items that did not fall on the border of the quartile range. Below are the four response items selected for an example situation in order of rated competence. For this situation, the quartile values were 1.92, 2.67, and 4.33.

1. There is a new guy in your math class. The teacher assigns him a seat near you. You would like to introduce yourself. What would you do?

5.00 (.00) Walk up to him and say, "Hi, my name is..."

3.33 (.58) I would say hello and see what happened from there.

2.00 (.00) I would just approach her and wait for an opportunity to say something funny.

1.33 (.58) I might just wait for him to speak to me.

Four vignettes were dropped from consideration for the final measure due to insufficient variance in the judges' competency ratings in the response list (See Appendix M). In other words, for a small subset of heterosocial situations, participating adolescents generated responses that were rated as very similar levels of competence. For the remaining 40 vignettes, one response was selected from each quartile to become one of the multiple-choice responses on the final measure. Order of responses within each vignette was randomly selected to avoid potential response bias.

Study 4: Evaluation of the Measure

Participants

Participants included 142 adolescent males and females (72 males, 70 females) recruited from two local high schools. A letter was sent to high school principals asking for their participation in the project. After obtaining approval from the principal, consent forms were distributed to students by their teachers to be signed by their parent/guardian. Students under the age of 18 were required to return a signed consent form in order to participate. Students 18 years of age or older were given the option of signing their own informed consent form. Only those adolescents with consent to participate were included in the study. In addition to providing an informed consent form signed by a parent or guardian (see Appendix N), participants were asked to give individual verbal assent of willingness to engage in the research study prior to distribution of the survey (see

Appendix O). Participants were told that if they encountered any questions they felt uncomfortable answering, they could cross them out. Furthermore, participants were informed of their right to end participation at any time without any adverse consequences.

Procedure

The data were collected in either two one-hour sessions or one two-hour session conducted in participating classrooms during the Fall 2001 and Spring 2002 semesters. High-school students were asked to complete a series of questionnaires. Participants were provided with manila folders to use to keep their responses to the survey questions private. Participants were also given a debriefing sheet with the name of a staff person at their school and a list of local resources they could contact in the event they experienced distress or discomfort as a result of being in the study (see Appendix P). The primary investigator ran the project with assistance from trained graduate and undergraduate students.

Measures

Demographics Survey. A brief personal information sheet was included at the end of the questionnaire to gather descriptive information about the participating population (see Appendix Q). Participants were asked their age, race, whether or not they were currently dating, whether they had ever engaged in sexual intercourse, and, if so, age at first sexual intercourse. In addition, participants were asked to indicate their parents' occupations and extent of education in order to determine socioeconomic status (SES) using the Hollingshead (1975) classification system. Possible scores on the Hollingshead range from 8 to 66 with higher scores indicating higher SES. The

Hollingshead scale was included as a measure of a discriminant construct, therefore it was not expected to correlate with the MAHC.

Heterosocial competence. The Measure of Adolescent Heterosocial Competence (MAHC; see Appendix R) was used to assess heterosocial competence. The MAHC is a 40-item multiple-choice questionnaire developed to assess heterosocial competence in a range of situations. Respondents are asked to read brief vignettes of heterosocial situations and select their response from four choices of varying competence. Topics addressed in the vignettes include introducing oneself to a member of the other sex, initiating a date, discussing past relationships, breaking up with a romantic partner, negotiating sexual situations, situations involving drug or alcohol, and sexual harassment. Responses are scored with values from one to four with higher values assigned to more competent choices. Possible scores range from 40 to 160. A total score was used in comparisons with the other measures.

Strategies employed in conflict negotiation. The Conflict in Adolescent Relationships Inventory is a 70-item self-report scale designed to measure conflict resolution strategies used by adolescents and their partners in dating relationships (CADRI; Wolfe et al., 2001; see Appendix S). The questionnaire includes items pertaining to overt and covert forms of violence, abuse, intimidation, and positive communication (Wolfe & Werkerle, 1997). Participants are required to indicate the frequency of specific conflict-related behaviors employed over the last six months. Exploratory and confirmatory factor analysis yielded a single, underlying “abusiveness” factor (Wolfe et al., 2001). The CADRI correlates significantly with behavioral observations of couples’ interactions, perceived social competence, and trauma-related

distress (Wolfe et al., 2001; Wolfe & Wekerle, 1997). The CADRI Total Score is computed by adding the entire scale omitting the positive items. For research purposes, the authors recommend using a 'restricted abuse' score that leaves out sexual abuse and relational aggression items due to the low frequency of incidence. The possible range of the restricted score is from 0 to 108, with higher scores representing more coercive conflict negotiation strategies. The CADRI Restricted Score was included in the MTMM matrix as a measure of an inversely related convergent construct.

Heterosocial anxiety. The Survey of Heterosexual Interactions is a 20-item self-report scale used to assess anxiety in heterosexual situations (SHI; Twentyman & McFall, 1975; see Appendix T). Each item details a heterosexual interaction and participants rate on a Likert-type scale how difficult the situation would be to initiate or maintain. Internal reliability coefficients for both forms of the SHI range from .89 to .91 (Bruch & Hynes, 1987; Leary & Dobbins, 1983; Williams & Ciminero, 1978). Men who score in the low range on the SHI have been found to interact with fewer women in fewer situations and to be rated by others as more anxious in heterosocial situations than high scoring males (Twentyman & McFall, 1975). The female form of the SHI correlates positively with measures of trait anxiety, and negatively with indices of assertiveness, and use of effective contraceptive methods (Bruch & Hynes, 1987; Williams & Ciminero, 1978). Possible scores range from 20 to 140. The SHI was designed for use in a college student sample; therefore, some of the items were altered to be more appropriate for an adolescent sample (e.g., meeting in a bar was changed to meeting in the lunchroom). As higher scores indicate lower anxiety, the SHI Total Score is expected to correlate

positively with the MAHC. As such, the SHI was included as a measure of a convergent construct.

General social competence. The Measure of Adolescent Social Performance is a 50-item self-report scale designed to assess adolescent broad social functioning (MASP; Cavell & Kelley, 1992; see Appendix U). Participants are required to consider problematic social situations and indicate which of four response options is most like what they would do or say. The MASP contains 20 peer items, 18 family items, and 12 school items. Internal consistency is adequate at .87 as is test-retest reliability for two weeks at .82. The MASP correlates significantly with self-report ratings of self-worth and friendship quality and with teacher ratings of behavioral conduct and scholastic competence (Cavell & Kelley, 1992). The MASP failed to correlate with teacher ratings of peer acceptance. Total scores on the MASP range from 50 to 200 with higher scores indicating greater social competence. The MASP was included as a measure of a convergent construct.

Peer acceptance. Sociometric rating scales ask children to rate each of their peers on specific qualities (e.g., liking, desire to spend time with, often fights). Most commonly used in preschool and in grade school, children usually rate their participating classmates. Implementing sociometric scales in adolescence is more challenging as adolescent peer relationships extend beyond the classroom as a result of their widening social network and as a result of multiple class periods. A more developmentally appropriate approach may be to have grade-mates participate in the rating scales (Walters & Inderbitzen, 1998). Our measure required participating grade-mates to rate each peer on a 5-point Likert scale of liking. Specifically, each participant was asked to rate "how

much you like spending time with each person listed below” as (1) = do not like spending time with and (5) = like spending time with a lot (see Appendix V). Ratings tend to be more reliable than sociometric nominations that require children to select the peers they like best or like least from a class roster (Foster, Inderbitzen, & Nangle, 1993). Peer acceptance has been related to measures of mental illness, criminal activity, aggression, poor classroom behavior, and failure to complete school (Epstein, 1983; Parker & Asher, 1987; Savin-Williams & Berndt, 1990; Vernberg, 1990; Vernberg et al., 1992). The peer acceptance measure was included as a different method for assessing the construct of general social competence. Peer acceptance was expected to be significantly related to heterosocial competence. However, the strength of that relationship would probably not be as strong as the monotrait-monomethod relationships.

Data Analytic Strategy

The final step of the Goldfried and D’Zurilla model is the evaluation of reliability and validity of the measure. One advantage of the Goldfried and D’Zurilla model is that in sampling the target population for situations and responses to those situations, content validity is built in (Goldfried & D’Zurilla, 1969). In order to investigate reliability, coefficient alpha was computed to determine the internal consistency of the MAHC. In addition, a preliminary exploratory factor analysis was attempted. Correlations were computed between all measures and presented in a multitrait-multimethod matrix (MTMM; Campbell & Fiske, 1959). The MTMM is a way of presenting the relationships between measures in order to determine convergent and discriminant validity, thus serving to assess the validity of the Measure of Adolescent Heterosocial Competence (Foster & Cone, 1995). In Cronbach and Meehl’s (1955) view, the issue of validity refers

to the meaning of scores on an assessment measure. Presentation of scores in one matrix allows inspection of the pattern of relationships, therefore enabling inferences regarding the construct measured by the test. Moreover, the use of maximally different assessment methods (e.g., self-report, rating scale, behavioral observation) permits the researcher to control for common method variance. The correlations between assessments of the same construct by different methods should be significant. In addition, these correlations should be stronger than the correlations between assessments of different constructs. Using the MTMM, the researcher develops a set of a priori hypotheses, or prediction of the pattern and strength of the expected correlations (Cronbach & Meehl, 1955; Foster & Cone, 1995).

The following is a table representing all possible correlations between the measures of heterosocial competence (HC), strategies employed in conflict negotiation (CN), heterosocial anxiety (HA), general social competence (SC), peer acceptance (PA), and socio-economic status (SES) (See Table 6). The pattern of monotrait-monomethod correlations is expected to reflect significant convergent validity correlations in order of specificity to heterosocial competence (i.e., HC/CN, HC/HA, HC/SC). The relationship between HC and PA is expected to be significant, yet not as strong the above as it is a monotrait-heteromethod interaction that lowers the correlation by removing common method variance. Finally, SES is expected to act as a discriminatory variable for all the measures.

Table 6

A Priori Hypotheses for the Multitrait-Multimethod Matrix Among Measures of Heterosocial Competence (HC), Strategies Employed in Conflict Negotiation (CN), Heterosocial Anxiety (HA), General Social Competence (SC), Peer Acceptance (PA), and Socioeconomic Status (SES)

	HC	CN	HA	SC	PA	SES
HC	-	-	-	-	-	-
CN	HC/CN	-	-	-	-	-
HA	HC/HA	CN/HA	-	-	-	-
SC	HC/SC	CN/SC	HA/SC	-	-	-
PA	HC/PA	CN/PA	HA/PA	SC/PA	-	-
SES	HC/SES	CN/SES	HA/SES	SC/SES	PA/SES	-

Note: It was hypothesized that: (a) all correlations with SES will be non-significant, (b) the pattern of correlations involving HC will be $HC/CN > HC/HA > HC/SC > HC/PA$, (c) the pattern of correlations involving CN will be $HC/CN > CN/SC > CN/PA > CN/HA$, (d) the pattern of correlations involving HA will be $HC/HA > HA/SC > HA/PA > CN/HA$, (e) the pattern of correlations involving SC will be $SC/PA > CN/SC > HC/SC > HA/SC$, and (f) the pattern of correlations involving PA will be $SC/PA > CN/PA > HC/PA > HA/PA$.

Results

Demographics Survey. Participants ranged from 14 to 18 years of age ($M = 16.43$, $SD = 1.05$). The participant sample was predominantly Caucasian (90.1%). Other respondents indicated that they identified themselves as African-American, Latino, Asian, and Native American. Similar to reported rates in the adolescent dating literature, just over half (51.4%) reported being in a dating relationship at the time of the study (e.g., Connolly et al., 2000). Approximately half of respondents (52.8%) indicated having had sexual intercourse prior to the time of the study with age of sexual debut ranging from 13 to 18 ($M = 14.93$, $SD = 1.22$). The percentage of sexually active teens and age at sexual debut in this sample fall within the range reported in other investigations of adolescent sexual activity (e.g., Hogan, Sun, & Cornwell, 2000; Santelli, Lowry, Brener, & Robin, 2000). Significantly more females reported being in a dating relationship, $\chi^2(1, N = 142) = 6.84$, $p < .01$. However, there was no significant gender difference in reported experience with sexual intercourse, $\chi^2(1, N = 140) = .284$, $p = .59$, or age at first sexual intercourse, $\chi^2(5, N = 74) = 5.917$, $p = .31$. No significant differences were found for age and dating status, $\chi^2(4, N = 139) = 2.078$, $p = .72$, or report of sexual intercourse, $\chi^2(4, N = 138) = 5.604$, $p = .23$. Those participants who reported being in a dating relationship at the time of the study were significantly more likely to report incidence of sexual intercourse, $\chi^2(1, N = 75) = 23.23$, $p < .001$. In addition to the above, participants provided information for the Hollingshead (1975) socioeconomic status classification system. All five levels of the classification system were represented with the modal level indicating middle class status (1% Level 1, 8% Level 2, 24% Level 3, 54% Level 4, 14% Level 5; $M = 43.57$, $SD = 9.94$).

Item analysis. Internal consistency was moderate ($\alpha = .71$). The mean corrected item-total correlation was .20 (range -.06 to .41; See Table 7). Inter-item correlations varied with the mean at .06 (range -.29 to .44; See Table 8). In an attempt to reduce the data to a smaller number of latent dimensions and enhance internal consistency, an exploratory factor analysis was performed. First, Bartlett's test of sphericity and Kaiser's measure of sampling adequacy (MSA) were considered in order to evaluate the appropriateness of the data for a factor analysis. The significance of Bartlett's test was low ($p < .0001$) indicating that the present correlation matrix meets this minimum requirement for performing a factor analysis (Tinsley & Tinsley, 1987). However, the MSA was .520, considerably lower than acceptable (Kaiser, 1974). Despite the low MSA, the 40 variables were entered into the factor analysis. The data were first reduced with a principal components analysis to get an estimate of the approximate number of factors. The principal components analysis yielded 16 factors with eigenvalues above one. The data were then entered into a maximum likelihood analysis with a 16-factor solution. This more conservative analysis failed to reduce the number of factors with eigenvalues greater than one. These 16 factors explained 68.9% of the variance. Inspection of the items classified together as individual factors proved to be uninterpretable. Varimax rotation of the data yielded similar results. As such, the total score of the MAHC was included in the analyses.

Group differences in MAHC scores. Overall normative data by demographic subgroup is presented in Table 9. In this sample, MAHC scores varied from 79 to 141 ($M = 112.45$, $SD = 12.4$). Independent samples t -tests were used to compare mean MAHC scores by gender, dating status, and sexual status. MAHC scores differed

Table 7

Corrected Item-Total Correlations and Alpha if Item Deleted for the MAHC

Item Number	Corrected Item-Total Correlation	Alpha if Item Deleted
1	.1376	.7090
2	.0882	.7129
3	.0900	.7126
4	.2963	.6999
5	.1388	.7092
6	.2082	.7056
7	.1142	.7103
8	.3241	.6987
9	.2301	.7045
10	.2271	.7044
11	.0611	.7123
12	-.0550	.7185
13	.0932	.7110
14	.3197	.6986
15	.0766	.7132
16	.4115	.6913
17	.2540	.7040
18	.1673	.7077
19	.3071	.7011
20	.1936	.7064
21	.3313	.6985
22	.3350	.6979
23	.1176	.7106
24	.1621	.7080
25	.3027	.7010
26	.1502	.7090
27	.2724	.7015
28	.2464	.7033
29	.2562	.7027
30	.2152	.7051
31	.2195	.7049
32	-.0005	.7162
33	.2058	.7057
34	.2730	.7034
35	.1537	.7083
36	.3025	.6992
37	.3184	.6984
38	.2034	.7058
39	.2148	.7053
40	.0658	.7146

Table 8
Interitem Correlations for the MAHC

Item	1	2	3	4	5	6	7	8	9	10
1	1									
2	.199	1								
3	.086	.372	1							
4	.072	.316	.318	1						
5	.136	.338	.258	.244	1					
6	.077	.000	.081	-.015	-.140	1				
7	-.004	.061	-.050	-.014	-.062	.137	1			
8	.059	.194	.137	.120	.161	.103	.048	1		
9	.048	.093	.093	.261	.436	-.034	.220	.043	1	
10	.092	-.011	-.064	-.083	-.077	.240	.041	-.046	.067	1
11	-.054	-.246	-.004	-.093	-.088	-.054	.086	.106	.006	.060
12	.159	-.041	-.033	.061	.173	-.055	-.003	.037	.024	-.175
13	-.025	.036	.082	.062	-.053	.142	.348	.024	-.044	-.004
14	-.093	.106	.045	.158	.039	.077	-.001	.271	.049	.051
15	.030	.247	.073	.138	.167	.024	.009	.005	.312	-.041
16	.082	-.118	-.011	.042	.082	.052	.006	.272	.003	.037
17	.096	-.015	.082	.209	.090	.120	.213	.166	.148	.004
18	-.136	-.044	-.025	.233	-.019	.034	.045	-.035	-.042	.201
19	.017	.030	-.003	.104	.137	.168	-.061	.183	.036	.068
20	.083	.029	.104	.171	-.017	-.018	.087	.093	.180	.074
21	.079	.099	.163	.143	.303	.036	-.018	.123	.312	-.028
22	-.036	-.037	-.100	.055	-.111	.166	-.009	.201	-.032	.077
23	-.102	-.178	-.006	.064	-.145	.110	.144	-.038	.132	.228
24	.157	.075	.106	.108	.119	-.122	.158	.085	.058	.000
25	.008	.031	.093	.118	.082	.033	.006	.214	.100	.006
26	.007	-.104	-.100	.051	-.196	.097	-.137	.191	-.074	-.078
27	.046	.016	.035	.095	-.063	.209	-.047	.162	.014	.166
28	-.143	-.065	-.083	.011	-.049	.034	.073	.011	-.035	.109
29	-.010	-.089	-.137	.078	-.138	.112	.215	-.005	-.029	.036
30	.114	-.137	-.230	-.08	-.083	.180	-.047	.191	.034	.095
31	-.112	.076	.032	.187	.076	.089	.012	.059	.125	-.007
32	.083	-.101	-.037	-.054	-.182	.079	.031	-.142	-.177	.204
33	.061	.249	.124	.199	.088	-.047	-.177	.068	.044	-.027
34	-.054	.011	.077	.215	.046	.082	.039	.167	.051	.080
35	.084	.049	.039	-.050	.031	-.058	-.145	.063	-.024	.150
36	.040	-.117	-.103	.089	.046	.174	.147	.099	.214	.248
37	.206	-.218	-.026	.071	-.178	.146	.088	.113	.059	.297
38	.163	.102	-.021	.046	.146	-.028	-.049	.132	-.037	.187
39	-.073	-.024	-.051	.093	.017	-.011	.189	-.078	.076	.256
40	.057	-.173	-.228	-.282	-.180	.031	.046	.002	-.150	.099

Table 8 continued

Item	11	12	13	14	15	16	17	18	19	20
11	1									
12	-.056	1								
13	-.024	.098	1							
14	-.049	-.021	.088	1						
15	-.080	.132	-.083	.085	1					
16	.065	.089	.074	.251	.035	1				
17	-.027	-.042	.092	.105	.052	.234	1			
18	.264	-.214	-.020	.149	-.002	.162	-.086	1		
19	.028	.072	-.147	.128	-.062	.296	.215	.045	1	
20	.057	-.182	-.012	.116	.071	.063	.292	.050	.037	1
21	-.115	.117	.072	.286	.235	.110	.034	-.060	.265	.165
22	.039	-.051	-.096	.127	-.071	.232	.037	.181	.260	.092
23	.175	-.123	.257	.032	-.167	.107	.096	.075	.069	.092
24	-.131	.061	.063	.027	.065	.309	.100	.009	.122	.025
25	.035	.004	.043	.317	.142	.090	.144	-.020	.026	.148
26	-.080	-.022	-.038	.150	-.020	.106	-.024	.144	.095	-.055
27	-.006	-.066	-.056	.039	.076	.231	.007	-.072	.094	.008
28	.085	-.212	.113	.077	-.098	.151	.070	.180	.067	.036
29	-.094	.047	.175	-.005	-.138	.247	.148	-.003	.020	.129
30	.048	.092	.127	.142	.062	.209	-.068	.016	.084	-.203
31	.083	-.061	-.035	.224	.116	.101	.049	.207	.089	.049
32	.005	-.071	-.060	.010	.002	-.039	.014	.022	-.027	.100
33	.094	-.038	-.101	.070	.185	-.021	.04	.068	.022	.137
34	.116	.011	-.006	.255	-.067	.360	.123	.104	.173	.112
35	.114	-.061	-.101	.074	-.126	.154	-.046	.115	.162	.026
36	.133	-.006	-.179	-.060	-.031	.130	.057	.112	.123	-.037
37	.071	-.122	-.044	.022	-.088	.161	.221	.095	.112	.128
38	-.073	-.090	.005	.082	-.015	.120	.040	-.008	.106	-.026
39	-.004	-.116	.189	.124	-.173	.054	-.040	.191	.121	.081
40	.277	.034	.152	.003	-.288	.127	-.125	.094	.090	-.094

Table 8 continued

Item	21	22	23	24	25	26	27	28	29	30
21	1									
22	.123	1								
23	-.033	.028	1							
24	.292	.117	-.119	1						
25	.339	.126	-.053	.073	1					
26	-.013	.174	-.017	-.007	-.007	1				
27	.078	.220	.064	.057	.029	.213	1			
28	.125	.233	-.017	.103	.150	.259	.055	1		
29	.046	.203	.113	.044	.171	.147	.220	.165	1	
30	.047	.074	.109	-.023	.001	.170	.274	.057	.116	1
31	.016	.268	-.101	.064	-.061	.179	.140	.123	.091	.058
32	-.016	.014	.019	.085	.063	.013	.127	.209	.138	.002
33	.244	.175	-.122	.161	.153	-.042	.083	.160	-.029	.021
34	.139	.163	.093	.058	.240	-.106	.071	.135	.162	-.117
35	.010	.098	.090	-.124	.064	.194	-.086	.047	.062	.029
36	-.079	.270	.145	-.081	-.042	.147	.158	.140	.027	.230
37	-.009	.165	.165	-.069	.238	.143	.265	.102	.203	.131
38	.031	-.006	-.168	.053	.142	.091	.112	.113	.088	.164
39	.109	.113	.164	.071	.109	-.047	-.059	.158	.187	.080
40	-.105	.110	.150	-.065	.005	.111	-.081	.086	.178	.270

Table 8 continued

Item	31	32	33	34	35	36	37	38	39	40
31	1									
32	-.014	1								
33	.041	-.075	1							
34	.095	.004	.053	1						
35	.087	-.078	.009	.121	1					
36	.125	.071	.084	.021	.141	1				
37	-.018	.038	.047	.131	.144	.423	1			
38	-.058	.022	.140	-.091	.074	.134	.165	1		
39	-.041	-.169	.042	.019	.127	.057	.088	.195	1	
40	-.038	-.080	.040	-.081	.192	.134	.054	.200	.340	1

Table 9

MAHC Scores by Demographic Subgroup

Demographic	<u>n</u>	<u>M</u>	<u>SD</u>
Total	140	112.45	12.40
Sex			
Males	71	109.65	12.58
Females	69	115.33	11.64
Age			
14	1	115.00	-
15	31	113.29	12.52
16	40	113.60	11.81
17	43	110.81	13.13
18	23	113.48	12.35
< 17	72	113.49	11.95
> 16	66	111.74	12.83
Race			
White	127	112.51	12.66
Latino	2	109.00	18.39
Native American	2	106.00	9.90
Asian	2	108.50	3.54
Other	1	122.00	-
Non-White	7	109.86	10.25
Current Dating Relationship			
Yes	72	113.11	12.01
No	67	111.64	12.94
Sexual Intercourse			
Yes	74	111.95	12.41
No	65	112.97	12.58

significantly by gender ($t[138] = -2.775, p < .01$) with females obtaining significantly higher scores than males. Average scores on the MAHC were not significantly different for dating ($t[137] = .694, p = .49$) or sexual status ($t[137] = -.482, p = .63$). A one-way analysis of variance (ANOVA) performed to compare MAHC scores by age yielded no significant difference across groups ($F[4,133] = .345, p = .85$). Similarly, a one-way ANOVA performed to compare MAHC scores by race yielded no significant difference across groups ($F[4, 129] = .358, p = .84$). However, the sample size for non-White participants was extremely small, therefore, this finding may not be reliable.

Relation to measures of validity. Descriptive data on each measure are summarized in Table 10. Pearson product-moment correlations were computed in order to examine the relationships between the MAHC and the measures of convergent and discriminant validity (See Table 11). No significant relationship was found between the MAHC and the CADRI indicating no relationship between heterosocial competence and conflict negotiation skill. The MAHC was significantly positively correlated with the SHI ($r = .15, p < .05$) and the MASP ($r = .63, p < .01$). As such, those participants who scored higher on heterosocial competence reported more general social competence and lower heterosexual anxiety. No significant relationship was observed between the MAHC and the peer acceptance measure. The week of planned data collection, one participating high school refused to allow their students to complete the peer acceptance measure. Therefore, the sample size for the peer acceptance correlations is smaller than represented in the other measures. As hypothesized, the MAHC was not related to the Hollingshead classification of socioeconomic status. Regarding the hypothesized

Table 10

Means, Standard Deviations, Ranges, and Alpha Levels for the Measures of Validity

Measures	Mean	SD	Range	Alpha
MAHC	112.45	12.41	79 – 141	.71
CADRI – Restricted Score	19.37	13.41	0 – 60	.87
SHI	95.70	19.79	46 – 134	.94
MASP	141.60	17.23	97 – 180	.84
Peer Acceptance Rating Scale	2.05	.49	1.1 - 3.4	-
Hollingshead SES	43.57	9.94	17 – 66	-

Table 11

Correlations between the MAHC and Measures of Convergent and Discriminant Validity

Measure	MAHC	CADRI	SHI	MASP	PA	SES
MAHC	1					
CADRI	.01 (n=114)	1				
SHI	.15* (n=140)	-.02 (n=115)	1			
MASP	.63** (n=138)	-.08 (n=113)	-.12 (n=140)	1		
PA	-.04 (n=65)	-.06 (n=52)	.11 (n=67)	.02 (n=66)	1	
SES	-.08 (n=99)	.15 (n=83)	.15 (n=101)	.01 (n=100)	.15 (n=51)	1

Note: Sample sizes vary. In order to be included in the CADRI, the participant must report a dating relationship within the last six months. Only one school completed the peer acceptance measure.

* $p < .05$

** $p < .01$

relationship between the validity measures themselves, no significant relationships were obtained.

Relation to measures of validity by gender and age. Correlation matrices were also computed by gender (See Table 12) and by age (older vs. younger teens, see Table 13). Correlations by gender yielded similar findings to those collapsed across gender. No significant relationship was observed between the MAHC and the CADRI for either males or females. The MAHC was significantly related to the SHI for males ($r = .24, p < .05$) and approached significance for females ($r = .18, p = .07$). Only males demonstrated a significant relationship between heterosocial competence and heterosexual anxiety. The MAHC was also significantly positively correlated with the MASP for both males ($r = .63, p < .01$) and females ($r = .56, p < .01$). No significant relationship was observed between the MAHC and the peer acceptance measure for either gender. As hypothesized, the MAHC was not significantly related to the Hollingshead measure of socioeconomic status for either males or females. No other significant relationships were obtained.

A median split was used to group the participants by age. The younger adolescent group ranged from 14 to 16 ($n = 72$) years and the older adolescent group included ages 17 to 18 ($n = 68$). Correlations by age yielded slightly different findings to those collapsed across age. No significant relationship was found between the MAHC and the CADRI for either age group. The MAHC was significantly related to the SHI only for older teens ($r = .32, p < .01$). Thus, only older adolescents demonstrated an inverse relationship between heterosocial competence and heterosexual anxiety. The younger teens also exhibited a significant inverse relationship between the MASP and the SHI

Table 12

Correlations between the MAHC and Measures of Convergent and Discriminant Validity by Gender

Measure	MAHC	CADRI	SHI	MASP	PA	SES
MAHC	1	-.14 (n=55)	.24* (n=71)	.63** (n=70)	.09 (n=25)	-.08 (n=50)
CADRI	.11 (n=59)	1	-.07 (n=56)	-.16 (n=55)	.02 (n=20)	.16 (n=42)
SHI	.18 (n=69)	.07 (n=59)	1	-.08 (n=71)	-.12 (n=26)	-.01 (n=51)
MASP	.56** (n=68)	-.09 (n=58)	-.00 (n=69)	1	.05 (n=26)	.17 (n=51)
PA	-.09 (n=40)	-.08 (n=32)	.18 (n=41)	.10 (n=40)	1	.13 (n=22)
SES	.01 (n=49)	.18 (n=41)	-.03 (n=50)	-.03 (n=49)	.18 (n=29)	1

Note: Correlations for males are located in the top right half; correlations for females are located in the bottom left half.

* $p < .05$

** $p < .01$

Table 13

Correlations between the MAHC and Measures of Convergent and Discriminant Validity by Age

Measure	MAHC	CADRI	SHI	MASP	PA	SES
MAHC	1	-.07 (n=52)	.32** (n=66)	.56** (n=65)	-.06 (n=53)	-.22 (n=49)
CADRI	.10 (n=60)	1	-.02 (n=53)	-.19 (n=52)	-.01 (n=43)	.15 (n=41)
SHI	.04 (n=72)	-.01 (n=60)	1	.06 (n=67)	.14 (n=55)	-.05 (n=51)
MASP	.67** (n=71)	-.02 (n=59)	-.21* (n=71)	1	.06 (n=54)	-.13 (n=50)
PA	-.00 (n=12)	-.39 (n=9)	.01 (n=12)	-.07 (n=12)	1	.18 (n=44)
SES	.10 (n=49)	.17 (n=41)	.04 (n=49)	.16 (n=49)	.01 (n=7)	1

Note: Correlations for older adolescents (age >16) are located in the upper right half; correlations for younger adolescents (age < 17) are located in the lower left half.

* $p < .05$

** $p < .01$

($r = .21$, $p < .05$), indicating that those younger teens who reported higher levels of general social skill also reported higher levels of heterosexual anxiety. The MAHC was significantly correlated with the MASP for older teens ($r = .56$, $p < .01$) and younger teens ($r = .67$, $p < .01$). As hypothesized, the MAHC was not significantly related to the Hollingshead measure of socioeconomic status for either older or younger adolescents. No other significant relationships were obtained.

CHAPTER 3: DISCUSSION

Overview of Findings

The goal of this series of studies was to construct a measure of adolescent heterosocial competence, and in doing so, further define the construct. Nearly 500 adolescents participated in a series of four studies that followed the five-step method outlined in Goldfried and D’Zurilla’s (1969) seminal article on assessing competence. The data generated in the first three studies were used to construct a 40-item multiple-choice measure entitled the Measure of Adolescent Heterosocial Competence (MAHC). These studies built upon an already constructed taxonomy of adolescent-identified problematic heterosocial situations. Prior to the present series of studies, situations perceived by adolescents as difficult were identified through both focus group and questionnaire methodology to begin the first part of the *situational analysis* step (Grover & Nangle, in press; Grover et al., 2001). The initial study in the present series completed the first step of the model by requiring a new sample of adolescents to identify the most critical situations in the taxonomy (i.e., those that are difficult to resolve and occur with some frequency), a process referred to as *situational validation*. Next, another sample of adolescents generated a range of responses to each relevant situation in the *response enumeration* step. In Study 3, nine expert judges with extensive experience working with or researching adolescents judged the responses for competence to fulfill the *response evaluation* phase.

The final study began a process of measurement validation representing the *evaluation of the measure* phase. Item analysis of the MAHC revealed acceptable internal consistency, but failed to generate interpretable factors in an initial factor

analysis. Using a multitrait-multimethod approach to construct validation, the MAHC was compared to measures of theoretically related (i.e., general social competence, heterosocial anxiety, conflict negotiation in dating relationships, and peer acceptance) and unrelated (i.e., socioeconomic status) constructs. As predicted, the MAHC converged with the measures of general social competence and heterosocial anxiety. No significant relationships, however, were documented between the MAHC and measures of conflict negotiation skill in dating relationships or peer acceptance. Finally, consistent with predictions, the MAHC did not significantly correlate with a measure of socioeconomic status.

The Measure of Adolescent Heterosocial Competence

The MAHC is a 40-item multiple-choice self-report instrument designed to assess adolescent heterosocial competence. Utilization of an empirical process in constructing both the items and responses of the measure helped to enhance both content and social validity. The heterosocial situations used as items in the measure were generated by a sample of over 200 teens and then validated by a new sample of approximately 200 teens. The resulting 40 items span a range of heterosocial situations encompassing dyadic interactions within the bounds of acquaintanceships, friendships, romantic relationships, and abusive relationships. Additional items assess functioning in heterosocial situations at school, in groups of other-sex individuals, and in heterosocial situations that involve drugs and alcohol.

Item analysis of the MAHC revealed acceptable internal consistency ($\alpha = .71$). Internal consistency can be affected by a number of variables. One is the possibility that there were items that did not elicit responses consistent with the remaining items. That

is, perhaps more competent individuals failed to endorse consistently competent responses on some items. Indeed, examination of the item-total correlations revealed that a few items obtained low correlations with the total score (range $-.06$ to $.41$). Another possibility is that the items did not hang together because they represented more than one dimension of social competence. Although specific factors were not hypothesized, this possibility was examined further by conducting an exploratory factor analysis.

Unfortunately, attempts to identify multiple underlying latent dimensions using factor analysis were unsuccessful. Here, it is important to consider that re-analysis with a larger sample size may be more likely to yield interpretable factors. Exploratory factor analysis yielded 16 factors with eigenvalues above 1, with very few items loading significantly on each component. Using a Monte Carlo procedure to examine the effects of sample size on factor analysis, Guadagnoli and Velicer (1988) concluded that if an analysis reveals factors composed of only a few variables with low item loadings, a sample of 300 is recommended prior to interpreting the results of the solution. As the current sample size is approximately half of the recommended size, the factor analysis was not interpreted. As a result, items with low item-total correlations were not eliminated in this study. Further scale analysis and refinement will take place in a future study.

According to some theorists, situation-based social competence measures may not yield interpretable results in a factor analysis. Investigators like Schlundt and McFall (1987) believe that social competence scores are a poor index to use in order to group similar social situations. Feldman and Dodge (1987) pointed out that social situations that appear very similar might contain complex cues that result in a range of different responses. Likewise, situations that seem very different in content may contain similar

subtleties that elicit similar behavioral responses. As a result, a factor analysis may not organize social situations in a way that makes intuitive sense. Supporting such contentions, Cavell and Kelley (1992) reported a failure to obtain useful results from a factor analysis of their situation-based measure of general social competence.

Construct Validation of the MAHC

As validation is an ongoing process, the goal of this study was to begin the process of examining the validity of the MAHC. Campbell and Fiske (1959) outlined four requirements that a measure must fulfill in order to establish construct validity. The first two requirements concern convergent and discriminant validity. In order to be confident that a new measure assesses a specific construct, it must correlate with measures that assess the same construct (i.e., convergent validity) and not correlate with measures that assess theoretically unrelated constructs (i.e., discriminant validity). Third, Campbell and Fiske (1959) recommend taking into consideration the potential influence of common method variance. That is, correlations between measures could result from similar responses to the shared measurement method rather than to the content of the measure. Finally, a good test of construct validity should include measures of more than one construct (or trait) and more than one measurement method. A multitrait-multimethod (MTMM) matrix strategy is the approach most often used for examining construct validity (Foster & Cone, 1995).

As is often the case when introducing measures of previously unexamined constructs, it was challenging to select measures to build a matrix. Unfortunately, extensive literature reviews failed to uncover any existing measures of adolescent heterosocial competence. Therefore, a range of measures of conceptually related, but

theoretically distinct, constructs was selected for inclusion to examine convergent validity. In response to the theorized overlap between skill in same- and other-sex situations, measures of general social competence and peer acceptance were included. As peer acceptance is rated by others, it served as the additional measurement method in the MTMM matrix. In addition to investigating the relationship between general social and heterosocial competence, constructs that were more specific to heterosocial interactions were also of interest. For example, in consideration of the clinical literature on minimal dating, a classic measure of anxiety in heterosocial situations was added to the battery. Similarly, as violence in adolescent relationships is a growing concern and is hypothesized to be related to interpersonal-skills deficits, a measure of conflict negotiation strategy in dating relationships was selected.

In order to show that a measure adds to current existing knowledge, a new instrument must not correlate with measures of conceptually independent constructs. Choosing a measure of a theoretically unrelated construct was difficult as well. Numerous constructs are related to social competence (e.g., academic achievement, depression, socially desirable responding; Hartup, 1983; Savin-Williams & Berndt, 1990; Vernberg, 1990). Foster and Cone (1995) suggest that, in early investigations, new measures should be tested to ensure that they are not overly affected by certain pervasive constructs that have been shown to exert an undue influence on self-report responding, such as socioeconomic status, years of education, intelligence and socially desirable responding. A widely used index of socioeconomic status was selected as a discriminant measure to ensure that the MAHC is not sensitive to the economic background of the participants. There is little evidence to suggest that socioeconomic status should

influence heterosocial competence. In fact, in a study similar to the present investigation, socioeconomic status failed to correlate with a measure of general adolescent social competence (Cavell & Kelley, 1992).

The construct validity of the MAHC was evaluated by examining the four requirements delineated by Campbell and Fiske (1959). First, evidence for convergent validity was evaluated. Next, evidence for discriminant validity was inspected. Third, the monotrait-multimethod correlations were examined for information regarding validity controlling for common method variance. Finally, inspection of the overall pattern of the correlation matrix was used to formulate conclusions about the measure and the construct. As evidence of convergent validity, the MAHC was significantly related to the measure of general social competence and the measure of heterosocial anxiety. Thus, adolescents who exhibited greater heterosocial competence also indicated greater general social competence and lower anxiety in heterosocial situations. Two hypothesized convergent relationships were not obtained. The MAHC showed no relationship to a measure of conflict negotiation in a romantic relationship or to a measure of peer acceptance. Supporting discriminant validity, the MAHC was unrelated to a measure of socioeconomic status.

The inclusion of the measure of peer acceptance in the matrix served two functions: to assess convergent validity with a metric of social competence, and to examine the MAHC alongside a theoretically convergent measure that employed a different assessment method. As opposed to the self-report method of the MAHC, peer acceptance is obtained through ratings by peers. Unfortunately, a significant correlation between the two was not found. It is important to note that the sample size for the

correlations involving peer acceptance was roughly half that of the other correlations.

One school informed the experimenters that their students would not be allowed to complete the peer acceptance measure just minutes prior to data collection. As such, one of the four requirements for the establishment of construct validity was not met. However, the measure of peer acceptance did not correlate significantly with the additional measure of social competence. Possible reasons for this pattern of relationships are explored below in the section on theoretical implications of the MAHC.

In addition to the consideration of convergent and discriminant validity in the matrix, presentation of scores in one matrix allows inspection of the *pattern* of relationships, therefore enabling the researcher to make inferences regarding the construct measured by the test (Campbell & Fiske, 1959; Cronbach & Meehl, 1955). The resulting pattern was compared to the hypothesized pattern of correlations. The actual pattern fulfilled the overall hypotheses with two exceptions. The measures of conflict negotiation in dating relationships and peer acceptance were not significantly related to any other measures in the matrix. Despite obtaining fewer significant correlations than expected, the pattern displayed in the matrix offers strong support for the construct validity of the MAHC. As hypothesized, the MAHC was significantly correlated with the measures of general social competence and heterosocial anxiety. Adding support for the construct validity of the MAHC is the *absence* of a significant relationship between the measure of general social competence and the measure of heterosexual anxiety. As might be expected, the MAHC appears to be tapping into a dimension of competence that shares elements of both general social competence and heterosocial competence. Several items on the MAHC represent situations that are very similar to same-sex social

situations (e.g., introducing oneself to a new acquaintance, negotiating an argument). A portion of the variance beyond that accounted for by the overlap with general social competence is explained by anxiety experienced in heterosocial situations. Importantly, the correlation pattern suggests that the MAHC is assessing a construct that is not completely explained by the constructs of general social competence and heterosocial anxiety. The variance in the heterosocial competence construct is only partially accounted for in this correlation matrix. Thus, the MAHC is not a redundant measure of general social competence and, therefore, is a significant addition to the literature on heterosocial competence. In addition, the fact that the matrix resulted in a pattern that meshes well with existing theory argues against the effects of common method variance (Foster & Cone, 1995).

Additional Validity Tests

In addition to the MTMM matrix, differences in MAHC scores were compared over several demographics including gender, race, age, dating status, and sexual status. MAHC scores differed by gender with females scoring significantly higher than males. This disparity between the sexes could be caused by several factors. First, the difference in scores could reflect a higher level of overall competence in adolescent females in heterosocial situations. Females typically score higher on measures of general social competence and enjoy more friendship support across the teen years (Cavell & Kelley, 1992; Connolly et al., 2000). In addition, adolescent females tend to report a more extensive peer network than boys (Connolly et al., 2000). A larger peer network may translate into more frequent occasions to observe, learn, and practice both general social and heterosocial skills, thus giving females an advantage over males (Nangle & Hansen,

1998). Another possibility for the difference in scores is that females tend to date at an earlier age than boys and are more likely to date older boys (Ford, Sohn, & Lepkowski, 2001). Earlier participation in dating could give adolescent girls a "head start" in learning dating-related heterosocial skills by increasing the opportunities to learn and practice new skills. In addition, even if a female adolescent is not involved in a dating relationship, there is a high likelihood that another female in her peer group is dating. Thus, female adolescents may have increased opportunity to both observe more experienced peers in dating situations and benefit from friends' disclosures concerning dating experiences (Simon et al., 1992). Finally, the apparent superiority could be a result of the method of assessment (i.e., self-report) or the scoring criteria (i.e., adult generated) of the MAHC. For example, the self-report format of the MAHC may favor individuals with more verbal ability and females tend to have fewer problems with verbal tasks than males (Gullotta, Adams, & Markstrom, 2000). Furthermore, the decision to use adult judges in developing the response scoring criteria may also benefit females. Girls tend to be more adult-focused, rather than peer-focused, in their social behavior than boys (Crombie, 1988).

Aside from the gender differences, no other demographic differences in MAHC scores emerged. The absence of differences across racial categories was not surprising given the homogeneity of the sample. Also, there is little empirical evidence to suggest that a racial difference should be expected. Conversely, the MAHC was expected to vary by age. Prior to adolescence, boys and girls interact very little as a result of our gender-segregated society (Sippola, 1999). In contrast, adolescent friendship networks become larger, and more frequently include members of the other sex (Cairns et al., 1995;

Connolly et al., 2000; Csikszentmihalyi & Larson, 1984). Greater participation in mixed-sex groups offers a corresponding increase in opportunities to learn heterosocial skills through modeling and trial and error attempts. Also, increased participation affords more time to practice and hone heterosocial skills. Furthermore, participation in mixed-sex groups often facilitates the onset of dating relationships (Connolly et al, 2000; Dunphy, 1963). Therefore, one would expect older adolescents to have more heterosocial experience and, as a result, more knowledge of competent responding in a greater variety of heterosocial situations. The absence of a difference in MAHC scores by age is partially explained by looking at the other demographic indices. For example, neither the percentage of participants in a dating relationship nor the percentage of participants experienced with sexual intercourse differed by age. Therefore, despite the five-year range in ages of the participants, their reported heterosocial experiences differed very little.

Surprisingly, MAHC scores did not differ across dating status of participants. Again, it was hypothesized that adolescents with more experience in a range of heterosocial situations would obtain higher scores on the MAHC. Moreover, it was thought that more competent adolescents might be more skilled at maintaining a romantic relationship. Contrary to expectations, participating adolescents who reported current involvement in a dating relationship were no more heterosocially competent than their peers who were not involved in a dating relationship. Inspection of the literature on adolescent dating reveals several potential explanations for this phenomenon. First, adolescent dating relationships are relatively brief (e.g., four to nine months); therefore asking about a current dating relationship may not be a good indicator of active dating

(Feiring, 1995). Second, recent peer relations research underscores the importance of the quality of friendship in addition to the presence of friendship (Erdley et al., 2001). As such, an assessment of the quality of the dating relationship may have yielded more interesting results. Finally, assuming that dating experience is a prerequisite for heterosocial competence may be naïve. As Connolly et al. (2000) demonstrated, a great deal of cross-sex interactions occur in addition to established dating relationships. In their longitudinal study, only 52 out of the 180 high school participants were involved in a dating relationship in at least one of the three assessment periods. Thus, the majority of time spent learning heterosocial skills with other-sex peers may be outside of dating relationships. For instance, mutual self-disclosure among same-sex friends about romantic relationships offers an important source of information for non-dating peers (Connolly & Goldberg, 1999). Thus, there may be ample opportunity to learn about heterosocial situations without actually participating in a dating relationship.

Similarly, MAHC scores did not differ across report of previous experience with sexual intercourse. Again the assumption that experience in a greater range of heterosocial situations would be related to a higher degree of competence proved faulty. In fact, several findings in the literature suggest that early engagement in sexual intercourse is associated with negative outcomes that may reflect less social competence. For example, early sexual debut has been linked to higher rates of antisocial behavior and substance use (Capaldi et al., 1996; Tubman et al., 1996). In addition, younger teens tend to be less cognitively sophisticated and more vulnerable to illusions of immunity from the negative consequences of sexual behavior (Lapsley, 1990). Therefore, early engagement in sexual intercourse may be associated with less consistent contraceptive use. The lack

of difference in MAHC scores across sexual status could also be a reflection of the utilization of simplistic assessment questions. Indication of participation in sexual intercourse in a yes/no format may not fully capture sexual experience or knowledge. For example, virgin status may not be very different in terms of sexual experience than non-virgin status. Research on older adolescent sexual behavior reveals that non-coital sex is common in both virgins and non-virgins (Woody, Russel, D'Souza, & Woody, 2000). Finally, heterosocial competence may not be a strong factor in the onset of sexual activity in adolescence. In addition to peer factors, the onset of sexual behavior is mediated by several family factors such as education level, marital status, and work schedules of parents (Hogan, Sun, & Cornwell, 2000).

In sum, the MAHC appears to be an adequate measure of adolescent heterosocial competence. As a brief, self-report measure, it provides a cost-effective means for assessing an important aspect of social functioning in adolescence. Internal consistency is acceptable at $\alpha = .71$. Attempts at factor analysis failed to reveal any evidence of interpretable latent dimensions in the measure and, thus no subscales of the MAHC were created. However, factor analysis is recommended for larger samples than obtained here and may not be appropriate in an analysis of social competence scores. Further item evaluation and refinement will take place in a future study with more participants. As a result of the empirically derived heterosocial situations and response items, the MAHC demonstrates adequate content and social validity. Using a multitrait-multimethod matrix, the construct validity of the MAHC was examined by inspection of correlations among measures of convergent and discriminant constructs, comparison of correlations among different assessment methods, and consideration of the overall pattern of

correlations (Campbell & Fiske, 1959). The MAHC met three of the four requirements outlined by Campbell and Fiske (1959). Regarding convergent validity, the MAHC was significantly correlated with a measure of general social competence and a measure of heterosocial anxiety. Supporting the MAHC's discriminant validity, the MAHC did not correlate with socioeconomic status, thus ruling out a relationship with an often pervasive construct. Unfortunately, attempts to generate more evidence for convergent validity by using a measure of general social competence that utilized a different method of assessment failed. The MAHC was not significantly related to the measure of peer acceptance. Finally, inspection of the pattern of correlations yielded the strongest evidence for the construct validity of the MAHC. The significant relationship between the MAHC, the measure of general social competence, and the measure of heterosexual anxiety suggests that the construct the MAHC is tapping into has both a general social skill component and an anxiety component. However, no significant relationship was obtained between the measure of general social competence and the measure of heterosocial anxiety. This finding is critical in that it implies that the MAHC is assessing a construct related to, *but distinct from*, the other two measures.

Theoretical Implications for the Adolescent Heterosocial Competence Construct

This series of four studies served to design a needed measure of adolescent heterosocial competence and add to our conceptual knowledge regarding the construct. Although more research is needed in order to establish the MAHC as a valid and useful measure, the data gathered in its development and initial validation more clearly define the construct of adolescent heterosocial competence. What follows is a discussion of two

central issues in defining the construct: 1) the overlap with general social competence and 2) the specificity of the construct with regard to heterosocial situations.

Overlap with General Social Competence

In order to investigate the theorized overlap between heterosocial and same-sex social competence, two measures of general social competence (i.e., MASP, peer acceptance) were included in the battery of measures. Correlations among the measures revealed a significant relationship between the MAHC and the MASP and a non-significant relationship between the MAHC and peer acceptance. In addition, a non-significant relationship was documented between the MASP and peer acceptance. Implications of the findings for the construct of adolescent heterosocial competence are discussed below.

Relationship between the MAHC and the MASP. The significant relationship between the MAHC and the MASP across gender and age provides evidence of a considerable overlap between same- and other-sex social competence. An overlap between the two constructs was expected, as many same- and other-sex situations require similar behavioral solutions (e.g., initiate and maintain conversation, negotiate conflict). The emergence of other-sex interactions in adolescence often occurs within the context of same-sex peer interactions. In an anthropological study, Dunphy (1963) was the first to carefully document the shift from same-sex cliques to mixed-sex crowds that takes place during adolescence. From naturalistic observations of adolescents, he hypothesized that mixed-sex crowds facilitated adolescent romantic involvement. More recently, Connolly et al. (2000) obtained empirical support for Dunphy's suppositions. Following high schoolers for three years, Connolly and colleagues found that teens with more same-sex

friends also reported having more other-sex friends. Also, teens who belonged to a larger mixed-sex network were more likely to state that they were currently involved in a dating relationship. Thus, adolescents who maintained more social contacts with same-sex peers also reported a larger other-sex peer network and were more likely to be dating. Participation in a large mixed-sex social network may augment the development of heterosocial skills, and thus mediate the onset of engagement in dating relationships (Nangle & Hansen, 1998).

Competence in same-sex peer relations most likely directly affects the development of heterosocial competence. Both the quality of same-sex peer relationships and the breadth of the same-sex social network affect the learning mechanisms (i.e., observational learning, operant learning, participation, and cognitive influences) that enable the acquisition of heterosocial skills. For example, observational learning requires contact with social skill models. A large same-sex peer network increases the likelihood of a large other-sex peer network, thus ensuring the opportunity to observe cross-sex interactions (Connolly et al., 2000). Moreover, membership in a more competent peer group increases the likelihood that observed skills are effective skills. In addition to observational learning, the consequences of social behavior (either rewarding or punishing) help determine the probability of the maintenance of the behavior. A broad social network including both same- and other-sex peers affords adolescents more opportunities for operant learning. In addition to intrinsic rewards and the responses of other-sex peers, the same-sex peer group rewards and punishes other-sex behavior according to their values. Therefore, more competent peers are more likely to reinforce more competent responses. For example, Capaldi et al. (1999) recently observed that

hostile talk amongst boys mediated the relationship between early antisocial behavior and aggressive romantic relationships in adulthood. Both observational and operant learning require participation in a peer group for social learning to occur. As a result, adolescents who engage in fewer peer interactions have less chance to observe competent models and fewer opportunities to learn what behaviors will be rewarded in same- and other-sex situations. Finally, the peer group can also influence cognitive factors that impact heterosocial skill development. Affiliation with a particular peer group (e.g., populars, jocks, loners) may help determine how a member acts toward the other sex (Monsour, 2002).

Relationship between the MAHC and peer acceptance. The MAHC did not significantly correlate with the measure of peer acceptance. The measure of peer acceptance was included in the MTMM matrix as a measure of convergent validity and as a measure utilizing a method of assessment other than self-report. At first glance, the absence of a reliable association with peer acceptance could be interpreted as a reflection of the inadequacy of the MAHC. However, the absence of a relationship with the MAHC could be a result of a lack of power to obtain a significant result due to the low sample size. Considering the strong association between the MAHC and the MASP, the other index of social competence, it is unlikely that the absence of a relationship with peer acceptance means that heterosocial competence is not related to social competence. Moreover, no significant association was obtained between the MASP and the measure of peer acceptance. Instead, some researchers have concluded that, although widely used in childhood, peer acceptance rating scales may not be an adequate metric for social competence in adolescence (Inderbitzen, 1994).

Despite their widespread use in studying children, several researchers have expressed reservations with the use of sociometric measurements with adolescents. First, peer acceptance rating scales are most commonly used in elementary schools and call for classroom peers to rate each other. When assessing adolescents, however, this becomes a challenge due to the changing classes of most high schools and the broader peer network of adolescence. Whereas the peer network of the child rarely extends beyond the classroom, the peer network of the adolescent often extends across classrooms, grades, and even schools. Altering the methodology to include grademates instead of classmates is common, but it is unknown how this change affects the construct measured. Second, an adequate investigation of the psychometric properties of sociometrics with adolescents is needed (Inderbitzen, 1994). Third, peer sociometric measures do not assess behavior per se, but rather peers' feelings of acceptability of the target individual (Foster et al., 1993). Feelings of acceptability in adolescence may be influenced by the presence of cliques that are often defined by overarching social identities (Youniss, McLellan, & Strouse, 1994). Furthermore, a teen may be generally disliked in one classroom and be highly accepted in another, thus causing the individual's average acceptance score across grademates to regress toward the mean. Fourth, several researchers contend that factors outside of those characterized by social competence affect popularity (Cavell & Kelley, 1992). For example, social performance skill is often overlooked for degree of physical attractiveness or peer reputation (Bierman & Furman, 1984). In their study of social competence in adolescence, Cavell and Kelley (1992) obtained a significant relationship between physical attractiveness and peer acceptance, but failed to find a significant relationship between social competence and peer acceptance. Finally, the interactions

upon which heterosocial competence is judged may not be as observable to the peer group at large as are general social skills. Many of the social situations included in the MAHC are relatively private dyadic interactions (e.g., turning someone down for a date).

Specificity of Heterosocial Competence

In addition to the overlap with related constructs, the relationship of the MAHC with measures of heterosocial specific constructs was also investigated. A measure of heterosocial anxiety (i.e., Survey of Heterosexual Interactions, SHI; Twentyman & McFall, 1975) and a measure of conflict negotiation strategy in romantic relationships (i.e., The Conflict in Adolescent Dating Relationships Inventory, CADRI; Wolfe et al., 2001) were included in the validation study in order to examine the specificity of the MAHC. The implications of the results are discussed below.

Relationship between the MAHC and the SHI. A significant relationship was obtained between the MAHC and the SHI. When compared by gender, males exhibited a significant relationship between the MAHC and the SHI ($r = .24$, $p < .05$). The relationship between the two measures approached significance for females ($r = .18$, $p = .07$). A different pattern of correlations appeared across age suggesting a different relationship between the MAHC and the SHI for younger and older adolescents. Only older adolescents exhibited a significant relationship between the MAHC and the SHI. Importantly, the SHI significantly correlated with the MAHC but not the MASP, suggesting that anxiety in heterosocial situations explains a component of heterosocial competence, but not general social competence.

In order to interpret the relationship between the MAHC and the SHI, a review of the literature on the SHI and what it is theorized to measure is needed. The SHI is an

outgrowth of the clinical research movement to examine minimal dating in anxiety analog studies. The SHI consists of 20 items that each detail a heterosexual interaction and require participants to rate their ability to initiate or maintain each interaction. For males, lower scores on the SHI (representing higher anxiety) are predictive of lower rates of interaction with females in fewer social situations (Twentyman & McFall, 1975). For females, lower scores are associated with high trait anxiety, low assertiveness, and the use of less effective contraceptive methods (Bruch & Hynes, 1987; Williams & Ciminero, 1978). In an investigation of several tests frequently used to identify participants for minimal dating analog studies, Wallander et al. (1980) found that the four commonly used measures (including the SHI) were assessing slightly different constructs. The results of a factor analysis revealed four main factors interpreted as social anxiety, numerical estimate of dating experiences, dating experience in general, and the range of dating experience (i.e., how many different females dated). The SHI loaded highly on the social anxiety component. This led the authors to conclude that the SHI measured a construct that appeared to represent “attitudes and feelings in heterosexual-social situations” rather than dating experience (p. 558).

An examination of the item content of both the SHI and the MAHC further illuminates the relationship between the two measures. Both measures assess functioning in heterosocial situations; however, they tap into very different aspects of functioning. The MAHC is essentially a social problem solving measure that requires participants to select a solution to a heterosocial vignette. In contrast, the SHI asks participants to rate how likely they would be able to perform a restricted set of behaviors (e.g., start a conversation, maintain a conversation) within heterosocial interactions. The relationship

between the two measures suggests that competent responding in heterosocial situations is somewhat related to the amount of anxiety experienced in such situations. Several behaviors that distinguish highly socially anxious individuals from their more confident peers have important implications for the successful development of heterosocial skills. For instance, anxiety disrupts both the learning process and the execution of previously learned social skills (Galassi & Galassi, 1979; Hansen et al., 1992). Highly anxious individuals interact with the other-sex less frequently, thereby limiting their opportunity to both practice learned skills and to learn new skills through trial and error. In addition, anxious individuals report being less satisfied with their performance in heterosocial situations (Dodge et al., 1987). Negative self-evaluations of performance likely reduce the motivation to continue to enter into heterosocial interactions. Moreover, the same-sex friendship interactions of anxious individuals are often impaired (Himadi et al., 1980). As it is likely that heterosocial skills are partially learned through the modeling and self-disclosure of same-sex peers, highly anxious adolescents may not be privy to as much information regarding other-sex interactions.

In this study, anxiety in heterosocial situations was related to heterosocial competence only in older adolescents. Older adolescents who chose more competent solutions in heterosocial situations also reported lower anxiety in heterosocial situations. The increase in the association between heterosocial competence and anxiety with age could be a reflection of an increase in complexity of heterosocial interactions over time, with more adult-like interactions engendering an increase in anxiety. More likely, the relationship differs by age due to the pervasive nature of heterosexual anxiety in early adolescence. With age, more skilled adolescents may become more confident in their

abilities. In contrast, anxious adolescents may fail to learn and practice heterosocial skills as a result of their limited interaction with other-sex individuals and deficient interactions with same-sex friends. Therefore, the gap between the confident, more competent teens and the anxious, less competent teens becomes wider with age.

The significant correlation between the MAHC and the SHI compared with the absence of a significant correlation between the MASP and the SHI also affects our concept of the heterosocial competence construct. These findings suggest that the construct of heterosocial competence contains a component of social anxiety that is not related to general social competence. The relationship between heterosocial anxiety and heterosocial competence is important as it distinguishes the heterosocial competence construct as distinct from the general social competence construct.

Relationship between the MAHC and the CADRI. The CADRI was included in the MTMM matrix as a measure of a theoretically convergent and heterosocially specific construct, that of strategies employed in conflict negotiation with members of the other sex. The MAHC was not significantly related to the CADRI. In fact, the CADRI did not relate to any of the included measures. The explanation for the lack of relationships may lie in the multifaceted nature of the dating violence construct. That is, although one would expect more socially competent teens to employ fewer maladaptive conflict resolution tactics within a dating relationship, dating aggression is theorized to be determined by a host of factors including cultural (e.g., media, sex roles), familial (e.g., maltreatment, spouse-abuse), peer (e.g., aggressive peer group), and individual influences (e.g., attachment style) (Wekerle & Wolfe, 1996; Wolfe et al., 2001).

Accordingly, theoretical models of relationship violence are increasingly multifaceted. The most recent theories are exhaustive models that attempt to consider contextual, individual, and interactional variables. For example, Riggs and O'Leary (1996) have found empirical support for their comprehensive model of relationship violence in college samples. Their model focuses on contextual factors that predict who is likely to behave aggressively in a relationship, and situational factors that predict in what situations violence is likely to occur. Conceptualizing a similar theory for adolescents, Wolfe and colleagues (1998) segmented influences into three broad categories: family background (e.g., early child abuse, alcohol abuse), interpersonal adjustment (e.g., history of trauma and related symptoms, attachment style, interpersonal sensitivity and hostility), and individual resources (e.g., social competence, peer relationship quality). In testing this theory, Wolfe et al. (1998) reported that the presence of dating violence related to all three factors. Specifically, child abuse and alcohol abuse emerged as significant family influences. Interpersonal adjustment characteristics associated with dating violence included high interpersonal sensitivity, hostility, and insecure attachment style. Regarding individual resources, poor social problem solving, aggressive peer group, and low positive peer support were related to dating violence.

Thus, it appears that the other measures in the matrix assess constructs that are not directly related to dating violence. For example, neither the MASP nor the MAHC assesses family circumstances or the emotional tenor of interpersonal interactions (e.g., hostility, sensitivity). Moreover, the heterosocial anxiety measured by the SHI, while impacting the quality of interpersonal interactions, most likely prevents or limits interactions instead of increasing the probability of violence. Finally, as many dating

situations are not witnessed by outside observers, the quality of the relationship may not affect a measure of peer acceptance.

Limitations

Although this series of studies added needed information to a neglected area of psychological inquiry, it is not without limitations. First, despite the approximately 500 adolescents who participated in this program of study, the validation phase would have benefited from a larger sample size. For example, a larger sample would have allowed comparisons of correlations across age and gender (younger male adolescents, older male adolescents, younger female adolescents, older female adolescents). In addition, the current sample was too small to conduct an adequate factor analysis of the measure. Without an investigation of the possible underlying structure of the MAHC, decisions regarding item elimination were put on hold. If a measure taps into several factors, it can dampen the internal consistency of the assessment device. Therefore, the decision to drop some of the items to increase internal consistency appeared premature. As a result, the measure described here may not be the final version of the MAHC. Also related to sample size was the unexpected decision of one high school not to allow their 70 students to participate in completing the peer acceptance measure. The reduction of sample size on the peer acceptance measure significantly decreased the statistical power to detect significant relationships with that measure. Therefore, it is unclear how accurate the current results are regarding peer acceptance.

Second, this project was conducted in a racially homogeneous state, and the participating sample reflects that lack of racial diversity. This lack of diversity leads to the all-important question of whether a measure, created and validated with a primarily

rural White sample will generalize to other adolescent populations. In an attempt to increase the probability of the generalizability of the results, effort was made to ensure the greatest variety of participants possible in the state of Maine. For example, the primary investigator and research assistants often traveled to high schools several hours away in order to include adolescents from both rural and urban areas. In addition, one of the participating high schools was a highly respected private school that often draws students from other states. As a result of our attempts, the participants came from a variety of socioeconomic backgrounds. However, this would be a stronger study with a greater diversity of participants.

Another limitation of this project concerns the reliance on self-report measures in both the majority of the development and the initial validation of the MAHC. There are several advantages to the utilization of self-report methodology including economy, ease of administration, and the position of the adolescent as an intimate observer of his or her own behavior. On the other hand, self-report measures are vulnerable to subjectivity and misrepresentation. For instance, some researchers have hypothesized that less socially competent individuals may be poor self-monitors, and therefore, poor reporters of their own social behavior (Inderbitzen, 1994). In this study, self-report methodology was chosen due to the private nature of several of the social situations of interest. Yet, additional data concerning the correspondence between adolescent self-report of heterosocial behavior and their actual behavior is needed. In addition, utilization of the same assessment methods results in a degree of common method variance, or variability in the responses of participants due to the mode of assessment rather than the content of the measure. An attempt was made to control for this with the inclusion of the peer

acceptance measure (ratings-by-others vs. self-report); however, the peer acceptance measure was compromised by the small sample size. Fortunately, the resulting pattern of relationships appeared not to be due to common method variance. Foster and Cone (1995) assert that a pattern of relationships that meshes with theoretical expectations allows the researcher to argue against the influence of shared method variance. Still, a greater variety of modes of assessment would certainly have benefited this study.

Finally, the validation study is a cross-sectional look at the heterosocial competence measure in adolescence. Few developmental effects were obtained. As mentioned previously, this could be a function of the relative equality in heterosocial competence across high school ages. However, the emergence and development of heterosocial skills is most likely a complex and interactive process. A short-term longitudinal study, similar to Connolly et al. (2000), that follows a group of adolescents through high school might reveal more developmental process information about the construct.

Future Directions

The addition of an empirically derived measure of adolescent heterosocial competence could serve as the foundation for several lines of new research. Of primary importance is the continuation of the development and validation of the measure itself. Specifically, the next study needs a larger sample size and a more racially diverse population. A larger sample size would augment a more viable examination of possible underlying factors, thus providing the information needed to possibly improve the internal consistency of the measure. Moreover, the identification of latent factors would aid in the formulation of subscales tapping into different aspects of heterosocial

competence. In turn, the addition of subscale scores would open new avenues for research considering the interplay and functions of different components of heterosocial competence. A larger sample size would also provide the opportunity to examine more closely the construct of heterosocial competence by gender at different stages of adolescence (i.e., early adolescence vs. late adolescence). Increasing the diversity of the sample is of equal consequence. A more racially diverse sample would increase the likelihood that the obtained findings were generalizable to American adolescents at large. Furthermore, the development of norms for age, gender, and/or race may be essential and practical.

Although the construct validation described above revealed useful psychometric data, supplemental research on the reliability and validity of the MAHC is necessary. First, the reliability of the MAHC needs to be further examined. At this point, we know little about the short-term stability of the measure, therefore, a study of test-retest reliability would be useful. Moreover, further data on convergent and discriminant validity would add to the strength of the measure. In future investigations of convergent validity the use of assessment methods other than self-report (e.g., behavioral role-play, self-monitoring diaries of social interaction, ratings by mutual friends or romantic couples) would yield important information regarding convergent validity without the risk of common method variance. In addition, future efforts should also focus on establishing predictive validity. For example, the relationships between heterosocial skills and relationship satisfaction, contraceptive competence, and teen pregnancy have yet to be explored. Finally, although this study provided evidence that the MAHC is not related to socioeconomic status, investigation of other “pervasive” constructs is needed.

As per Foster and Cone's (1995) recommendations for building construct validity, the relationship between the MAHC and such constructs as intelligence and the tendency to respond in socially desirable ways should be examined.

In addition to psychometric research on the MAHC, further data on the construct of adolescent heterosocial competence would significantly add to the existing literature. For example, research with different ages, especially pre-adolescents and young adults, would help establish the developmental trajectory of the construct. Including a younger population may enable the researcher to document more of the initial development of heterosocial skills. In this study, no difference in MAHC scores across age was found; however, demographic information indicated that neither the percentage of participants in a dating relationship nor the percentage of participants with a history of sexual intercourse differed by age. Thus, including a preadolescent sample may be needed to examine a less heterosocially-experienced group. In their investigation of romantic partners as emotional support figures, Furman and Buhrmester (1992) examined 4th, 7th, 10th, and 13th grades in order to capture the developmental trajectory.

Similarly, inclusion of an older population would allow the researcher to investigate changes in the construct over time. At this time, the majority of research on cross-sex relationships has focused on adult romantic relationships. Thus, we know little about the link between adolescent and adult functioning in other-sex relationships. For instance, an examination with a college student population could consider the transition of competence in adolescent relationships to more adult-like relationships. As previously mentioned, adolescent dating relationships are relatively brief, whereas romantic relationships in college are characterized by more commitment (Feiring, 1995). Thus, the

construct of heterosocial competence may play a greater role in adjustment in a college student population. Indeed, research suggests that romantic partners surpass same-sex peers and parents as sources of support, caregiving, affiliation, and attachment during the college years (Furman & Buhrmester, 1992; Furman & Wehner, 1997). An examination of the relationship of heterosocial competence to measures of caregiving, affiliation, and attachment during the young adult years would add further to our understanding of the construct. Currently, a series of studies parallel to the four described in this dissertation is in progress with college students. The same steps were followed in the creation of the MAHC – College Student Version; hence, age differences in both item content and construct definition will be examined.

Finally, the developmental functions of adolescent heterosocial competence should be investigated. Right now, there are several gaps in the developmental literature regarding the role of heterosocial skills. For example, Connolly, Furman, and Konarski (2000) investigated the link between same-sex peer relationships and other-sex romantic relationships by examining the content of the peer network and the presence of dating relationships across 9th, 10th, and 11th grades. Results indicated that the size of the same-sex network was correlated with the size of the other-sex network. In turn, the larger the other-sex network, the greater the likelihood of engagement in a romantic relationship. The authors hypothesized that adolescents with more contact with the other sex likely develop the social skills needed to establish and maintain a romantic relationship; however, they included no measure to assess this hypothesis. The addition of the MAHC to the Connolly et al. (2000) study would enable the researchers to examine the possible mechanisms behind the development of romantic relationships in adolescence. For

instance, does participation in a mixed-sex peer group facilitate the development of heterosocial competence? What role does heterosocial competence play in the onset and quality of dating relationships? In addition, this study uncovered an interesting relationship between anxiety and heterosocial competence. Surprisingly, the association was significant only for the older adolescent group. Past research has established a link between anxiety and difficulties in heterosocial interactions during the college years, but we have little understanding of how anxiety inhibits the development of heterosocial competence. Connolly and Goldberg (1999) theorized that socially withdrawn teens are not accepted by the peer group at large and, as a result, may have fewer opportunities to interact with same- and other-sex peers. For socially anxious adolescents, entry into a romantic relationship may be delayed, may not occur, or may develop at an unusually rapid pace (very quickly becoming the primary source of emotional support). An investigation of the relationship between social anxiety, heterosocial competence, composition of the peer network, dating status, and relationship quality would be useful in tracking how anxiety may negatively impact the development of heterosocial competence. Therefore, future utilization of the MAHC can help move the developmental literature from descriptive investigations and theories regarding cross-sex relationships to a greater depth of inquiry.

Beyond theory development, the ultimate goal of operationalizing competence is to use that knowledge to benefit those who are less competent. The MAHC can be used to advance clinical knowledge both at the research level and at the individual level. The MAHC is a social problem solving measure that assesses the ability of adolescents to select competent responses to heterosocial situations. A next step needs to examine the

specific skills that comprise competent responding. Identification of specific skills (e.g., assertive refusal, reciprocal sharing) associated with heterosocial competence could be used to design components of effective interventions. In a different direction, several serious problems such as rape, sexual harassment, and inconsistent contraceptive use are hypothesized to be linked to heterosocial skills deficits. However, little research has been done to investigate the effects of heterosocial skills deficits beyond minimal dating. The high prevalence of such interpersonal problems among adolescents underscores the need to further examine the role that heterosocial deficits play in the emergence of high-risk sexual behavior and sexual assault.

At the individual level, the MAHC can be used to identify adolescents in need of intervention, select specific problematic situations in designing idiographic treatments, and evaluate existing interventions. The present results suggest that adolescents are grappling with complex, adult-like situations (e.g., how to initiate and maintain other-sex friendships, negotiating sexual activity and contraceptive use, dealing with drugs and alcohol, resisting sexual harassment) that have potentially dangerous outcomes if not effectively negotiated. From the current findings, it appears that interventions aimed at increasing heterosocial skill should either include a broad range of situations or be flexible depending on the needs of the participating adolescents. Moreover, an effective intervention should include, at least, a general social skills component and a heterosexual anxiety component.

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APPENDICES

Appendix A

Informed Consent – Study 1

Dear Parent/Guardian,

Your teen is being asked to participate in a University of Maine research project! We are interested in asking local teens about friendships and relationships in adolescence. As you may have noticed, teenagers spend a lot of time with their friends. In fact, learning effective social skills is one of the most important developmental tasks teenagers face. We are interested in learning about the social skills that teenagers use in situations involving other-sex friends (in the classroom, as friends, and in dating situations). We believe your teen can help us help other teens by participating in our study.

What's involved? This project involves a 40-minute survey. Your teen will be asked to rate social situations involving the other sex on two scales. The first scale asks the teenager to rate how common he or she feels the situation is for teens **in general**. The second scale asks the teenager to rate the difficulty of the described situation if he or she were to experience it. The situations in the questionnaire have been identified by other teens in the state of Maine. Below is a sample question:

1. Meeting someone of the other sex for the first time.

How common do you feel this situation is for people your age?

1 2 3 4 5

not common

very common

If you were in this situation, how difficult would it be for you to handle?

1 2 3 4 5

not difficult

very difficult

Other questions include classroom, work, friendship, and dating situations. In addition, the survey contains a few optional background questions to help us describe those teens that participated in the study in general terms. These optional questions ask about your teen's age, race, if your teen is dating someone, and if your teen has ever had sexual intercourse. Your teen can end participation at any time.

Will answers be private? Names will not be attached to the data collected and the information will be used only for research purposes. There will be no way to connect your teen to his or her responses. The returned surveys will be kept in a locked laboratory and will eventually be destroyed.

Risks/Benefits: We have taken care to consult with school nurses and guidance counselors in the construction of this project. The risk involved is no greater than what teens experience in daily school life. However, your teen will be provided with the name of a staff person at school with whom he or she can talk more about social interactions with the other sex. Also, we are both available to meet with teens to discuss their concerns. This research will be very valuable in helping us learn the kinds of social

situations teens find difficult. That knowledge will help psychologists and teachers design more effective education programs.

What do I need to do? Please fill out the second sheet and return to your teen's teacher as soon as possible.

Questions? Please feel free to call Rachel Grover (581-2058) or Dr. Douglas Nangle (581-2045) if you have any questions. We love to talk about our research!

We hope that you will allow your teen to be involved in this project. Thank you very much for your consideration.

Sincerely,

Rachel L. Grover
Doctoral Candidate

Douglas W. Nangle, Ph.D.
Associate Professor

Parent/Guardian consent for the University of Maine "Teen Friendships & Relationships Project."

_____ YES, my teen can participate.

_____ NO, my teen cannot participate.

Teen's Name: _____

Teacher's Name: _____

Grade: _____

Parent/Guardian Signature: _____

Appendix B

Assent Script – Study 1

Hi, my name is _____, and I am from the University of Maine. I am here today because I want to learn about teenagers. I am most interested in moments that teens have a difficult time interacting with the other sex. These could be times when someone is nervous or not sure how to act or what to do. For example, some teens may have a difficult time just talking to someone of the other sex. Other teens may think it is a difficult situation when a boyfriend or girlfriend gets jealous of the time you spend with your friends.

I would like you to fill out a survey on the topic. You will be asked to rate situations on two scales. The first scale asks you to rate how common you feel the situation is for teens in general. The second scale asks you to rate how hard the situations would be for you to handle if you were to experience it. Here is a sample question (Write on the chalkboard):

1. Meeting someone of the other sex for the first time.
How common do you feel this situation is for people your age?

1	2	3	4	5
not common				very common

If you were in this situation, how difficult would it be for you to handle?

1	2	3	4	5
not difficult				very difficult

On the last page of the survey, there are some background questions that will be used to describe people involved in the study in general terms. They ask your age, race, if you are dating, and if you have ever had sexual intercourse. For example, in my report on the study, I might say, "Participants ranged in age from 14 to 18 years. Most participants were white and 42% were sexually active."

If there are any questions you do not want to answer, just draw an X through it and don't answer it. All your answers are confidential. This means that first, they are anonymous – your name is not on the survey. Please do not write your name on the survey. Second, your answers are private. This means that I will not show your teacher or anyone in the school anything that you write.

We sent a letter home to your parents or guardians and they agreed to let you participate, but we would like to have your permission also. When I hand out the survey, please let me know if you want to participate.

Appendix C

Situational Validation Questionnaire (female form)

Below is a list of situations involving members of the other sex. Please rate each situation on two scales. The first scale asks you to rate how common you feel the situation is for teenagers your age. The second scale asks you to rate how difficult the situation would be for you to handle. Don't forget to rate both scales!

How **common** do you feel this situation is for people your age?

1 2 3 4 5
not common very common

If you were in this situation, how **difficult** would it be for you to handle?

1 2 3 4 5
not difficult very difficult

Situation	Common	Difficult
-----------	--------	-----------

First Meeting Situations

1. Meeting a boy for the first time. _____
2. Introducing yourself to a boy the first time. _____
3. Being introduced to a boy for the first time. _____
4. Talking to a boy for the first time in person. _____
5. Talking to a boy for the first time on the phone. _____
6. Approaching a boy. _____
7. Starting a conversation with a boy that you don't know. _____

Situations that Follow First Meetings

8. Calling someone you are interested in. _____
9. Starting conversations with boys. _____
10. Keeping conversations going with boys. _____
11. Ending a conversation with a boy. _____
12. Telling a boy you are interested in a friendship. _____
13. Telling a boy you are interested in a relationship. _____
14. Finding out if the boy is interested in you. _____

How **common** do you feel this situation is for people your age?

1 2 3 4 5

not common very common

If you were in this situation, how **difficult** would it be for you to handle?

1 2 3 4 5
not difficult very difficult

Situation	Common	Difficult
-----------	--------	-----------

15. Asking a boy for his phone number.

Friendship Situations (this section is about **friends who are boys** – not “boyfriends”)

16. Finding topics to talk about.

17. Talking about personal problems.

18. Sharing secrets.

19. Talking about sex.

20. Talking about his girlfriend.

21. Talking about your boyfriend.

22. Your friend is jealous of the time you spend with your boyfriend.

23. Your friend is jealous of the time you spend with your girlfriends.

24. Disagreeing with a friend.

25. Arguing with a friend.

26. Being alone with a friend.

27. Being introduced to your friend's parents.

28. Shopping with a friend.

29. Eating with a friend.

30. Your friend likes you as more than a friend and you are not interested.

How **common** do you feel this situation is for people your age?

1 2 3 4 5
not common very common

If you were in this situation, how **difficult** would it be for you to handle?

1 2 3 4 5
not difficult very difficult

Situation	Common	Difficult
-----------	--------	-----------

Dating Relationship Situations

47. Meeting your boyfriend's friends. _____
48. Meeting your boyfriend's family. _____
49. Talking about past relationships with your boyfriend. _____
50. Sharing your feelings with your boyfriend. _____
51. Getting your boyfriend to talk about his feelings. _____
52. Telling your boyfriend you love him. _____
53. Your boyfriend tells you he loves you
and you are not sure if you love him back. _____
54. Talking about the future of your relationship. _____
56. Talking about commitment. _____
57. Finding out that your boyfriend lied to you. _____
58. Asking your boyfriend to stop flirting with other girls. _____
59. Telling your boyfriend that you cheated on him. _____
60. Confronting your boyfriend about cheating. _____
61. Arguing with your boyfriend. _____
62. Your boyfriend wants to spend more time with you
than you want to with him. _____
63. You want to spend more time with your boyfriend
than he wants to spend with you. _____

How **common** do you feel this situation is for people your age?

1 2 3 4 5 6

not common very common

If you were in this situation, how **difficult** would it be for you to handle?

1	2	3	4	5
not difficult				very difficult

Situation	Common	Difficult
-----------	--------	-----------

64. Telling your boyfriend you want to break up.

65. You are jealous of the time your boyfriend spends with other people.

66. Your boyfriend is jealous of the time you spend with other people.

67. Trying to be friends with your ex-boyfriend.

Sexual Situations

68. Asking someone to have sex.

69. Bringing up the topic of sex with a boyfriend.

70. Telling a boyfriend what you will and won't do sexually.

71. Telling a boyfriend that you are not ready to have sex.

72. Your boyfriend telling you he is not ready to have sex.

73. Talking about what kind of birth control to use.

74. You and your boyfriend disagree about what kind of birth control to use.

75. Talking about sexually transmitted diseases.

76. Talking about pregnancy.

Work Situations

77. Having a male boss.

78. Working alone with a boy.

How **common** do you feel this situation is for people your age?

1 2 3 4 5

not common **very common**

If you were in this situation, how **difficult** would it be for you to handle?

1 2 3 4 5
not difficult very difficult

Situation	Common	Difficult
-----------	--------	-----------

79. Working in a small space with a boy. _____

80. A boy asks you out at work and you want to say no.

81. Working with a boy you don't know well.

School Situations

82. Discussing personal problems with a male teacher.

83. Being alone with a male teacher.

84. Getting help from a male teacher.

85. Speaking in class in front of boys. _____

86. When there are more boys than girls in the classroom. _____

87. Sex education with boys in the classroom. _____

88. When a boy asks to cheat off of your paper.

89. Asking a boy for help in class. _____

90. Helping a boy in class. _____

91. Disagreeing with a boy in class. _____

92. Competing with boys in gym class. _____

93. Being on a sports team with boys. _____

94. Working on a school project with a boy outside of school.

Group Situations

95. Talking to a boy when his friends are around.

How **common** do you feel this situation is for people your age?

1 2 3 4 5
not common very common

If you were in this situation, how **difficult** would it be for you to handle?

1 2 3 4 5
not difficult very difficult

Situation	Common	Difficult
-----------	--------	-----------

96. Being the only girl in a group of boys.

97. Being at a party.

98. Working with all boys.

Health Situations

99. Talking about having your period with a boy.

100. Talking to a male doctor.

Drinking and Drug Situations

101. Being asked to drink by a boy.

102. Being asked to do drugs by a boy.

103. Drinking with boys.

104. Doing drugs with boys.

105. Making-out with someone when drinking or doing drugs.

106. Pressure to drink from boys.

107. Pressure to do drugs from boys.

Harassment Situations

108. When a boy touches you and you don't want him to.

109. Sexual remarks at work or school.

110. Sexual gestures at work or school.

111. Rape.

How **common** do you feel this situation is for people your age?

1 2 3 4 5
not common very common

If you were in this situation, how **difficult** would it be for you to handle?

1 2 3 4 5
not difficult very difficult

Situation	Common	Difficult
112. Mental abuse by a boyfriend (like name-calling, insults, possessiveness).	_____	_____
113. Physical abuse by a boyfriend.	_____	_____
114. When a boy teases you in a really mean way (like calls you fat or ugly).	_____	_____
115. Being unsure about what is flirting and what counts as sexual harassment.	_____	_____

Appendix D
Debriefing Statement - Study 1

Thank you for participating. The information you gave us will be used to help other teens. If you have any further questions, please feel free to ask the University of Maine researcher that handed out this sheet or talk to (insert name of school staff person) at your school.

Below is a list of phone numbers for you to keep or pass along to a friend. Thank you for your time and your help!

Phone Help	1-800-245-8889
Rape Response Services	1-800-310-0000 or 989-5678
Spruce Run (Domestic Violence)	947-0496
InfoLine (Referral Service)	1-800-204-2803

Appendix E
Demographic Survey – Study 1

The following questions will be used to describe people involved in this study in general terms. For example, in my report on the study, I might say, "Participants ranged in age from 14 to 18 years. Most participants were white and 42% were sexually active."

If you feel uncomfortable answering any of the questions, leave them blank.

1. Age: _____

2. Race: _____

3. Are you dating someone? Yes No

If so, what is the sex of your partner? Male Female

4. Have you ever had sexual intercourse? Yes No

If so, at what age did you first have sexual intercourse? _____

Appendix F
Informed Consent – Study 2

Dear Parent/Guardian,

Your teen is being asked to participate in a University of Maine research project! We are interested in asking local teens about friendships and relationships in adolescence. As you may have noticed, teenagers spend a lot of time with their friends. In fact, learning effective social skills is one of the most important developmental tasks teenagers face. We are interested in learning about the social skills that teenagers use in situations involving the other-sex (in the classroom, as friends, in dating and sexual situations). We believe your teen can help us help other teens by participating in our study.

What's involved? This project involves a one-hour survey. Your teen will be asked to read several situations involving the other sex and write down how he or she would act in each situation. The situations in the questionnaire have been identified as difficult social situations by other teens in the state of Maine. Below is a sample question:

For males:

2. You are at a school dance. You notice a girl across the room that you recognize from the lunch room, but you have never been introduced to her. You want to meet her. What do you do?

For females:

4. You are at a school dance. You notice a boy across the room that you recognize from the lunch room, but you have never been introduced to him. You want to meet him. What do you do?

Other questions include classroom, work, friendship, dating, and sexual situations. In addition, the survey contains a few optional background questions to help us describe those teens that participated in the study in general terms. These optional questions ask your teen's age, race, if your teen is dating someone, and if your teen has ever had sexual intercourse. Your teen can end participation at any time.

Will answers be private? Names will not be attached to the data collected and the information will be used only for research purposes. There will be no way to connect your teen to his or her responses. The returned surveys will be kept in a locked laboratory and will eventually be destroyed.

Risks/Benefits: We have taken care to consult with school nurses and guidance counselors in the construction of this project. The risk involved is no greater than what teens experience in daily school life. However, your teen will be provided with the name of a staff person at school with whom he or she can talk more about social interactions with the other sex. Also, we are both available to meet with teens to discuss their concerns. This research will be very valuable in helping us learn the kinds of social

situations teens find difficult. That knowledge will help psychologists and teachers design more effective education programs.

What do I need to do? Please fill out the second sheet and return to your teen's teacher as soon as possible.

Questions? Please feel free to call Rachel Grover (581-2058) or Dr. Douglas Nangle (581-2045) if you have any questions. We love to talk about our research!

We hope that you will allow your teen to be involved in this project. Thank you very much for your consideration.

Sincerely,

Rachel L. Grover
Doctoral Candidate

Douglas W. Nangle, Ph.D.
Associate Professor

Parent/Guardian consent for the University of Maine "Teen Friendships & Relationships Project."

_____ YES, my teen can participate.

_____ NO, my teen cannot participate.

Teen's Name: _____

Teacher's Name: _____

Grade: _____

Parent/Guardian Signature: _____

Appendix G
Assent Script – Study 2

Hi, my name is _____, and I am from the University of Maine. I am here today because I want to learn about teenagers. I am most interested in moments that teens have a difficult time interacting with the other sex. These could be times when someone is nervous or not sure how to act or what to do. For example, some teens may have a difficult time just talking to someone of the other sex. Other teens may think it is a difficult situation when a boyfriend or girlfriend gets jealous of the time you spend with your friends.

I would like you to fill out a survey on the topic. Here is a sample question:

For males:

1. You are at a school dance. You notice a girl across the room that you recognize from the lunch room, but you have never been introduced to her. You want to meet her. What do you do?

For females:

2. You are at a school dance. You notice a boy across the room that you recognize from the lunch room, but you have never been introduced to him. You want to meet him. What do you do?

On the last page of the survey, there are some background questions that will be used to describe people involved in the study in general terms. They ask your age, race, if you are dating, and if you have ever had sexual intercourse. For example, in my report on the study, I might say, "Participants ranged in age from 14 to 18 years. Most participants were white and 42% were sexually active."

If there are any questions you do not want to answer, just draw an X through it and don't answer it. All your answers are confidential. This means that first, they are anonymous – your name is not on the survey. Please do not write your name on the survey. Second, your answers are private. This means that I will not show your teacher or anyone in the school anything that you write.

We sent a letter home to your parents or guardians and they agreed to let you participate, but we would like to have your permission also. When I hand out the survey, please let me know if you want to participate.

Appendix H
Vignettes Included in the Response Enumeration Questionnaire

1. There is a new guy in your math class. The teacher assigns him a seat near you. You would like to introduce yourself. What would you do?
2. You are at a school dance. You notice a girl across the room that you would like to talk to. You know her name, but you have never talked to her before. What would you do?
3. You are standing outside after school with a bunch of friends. You would like to call one of the guys, but you don't have his phone number. What would you do?
4. You talk to this girl during class sometimes and you would like to talk to her more. One evening, you look up her number in the phone book. What would you do?
5. You have had a crush on a guy in school for weeks. You want to find out if he likes you. What do you do?
6. You have been friends with this girl for about a year. Today you are really upset because you had a big fight with your parents last night. You would like to talk about the fight with a friend, but you don't usually talk about personal problems with girl friends. Your friend asks, "Why are you so quiet?" What would you do?
7. You are eating lunch with a guy friend. While you are eating, he asks you if your bestfriend is okay. You know that your bestfriend's parents are getting a divorce and that she is really upset about it. You also know that she asked you not to tell anyone else. What would you do?
8. One of your guy friends asks you if you want to go to a movie Friday night with a group of friends. You already have plans to go out with your boyfriend on Friday. When you tell your friend, he says, "You are always spending time with your boyfriend. What about your friends?" What would you do?
9. You are having lunch with a group of friends when one of the guys starts saying something you really disagree with. What would you do?
10. You are concerned that one of your guy friends may like you as more than a friend. You enjoy his company, but you do not want to date him. What would you do?
11. You are good friends with this girl. Recently, you can't seem to stop thinking about her. You realize that you like her as more than a friend. What would you do?
12. One of your guy friends asks you to go to the mall one afternoon. You promised you would help out another friend this afternoon. Impatient, he says, "Come on,

don't let me down. A bunch of us are going. It would be really fun." You try to say no, but he keeps pressuring you. What would you do?

13. You have a huge crush on a boy in your English class. You have liked him for about a month. You talk in class and sometimes he stops you in the hall to say hello. You would like to ask him out. What would you do?
14. One day, a girl you know asks you out on a date. You want to turn her down, but you don't want to hurt her feelings. What would you do?
15. You are out in a first date with this guy. Suddenly you realize that neither of you has said anything for a while. You are getting a little uncomfortable. What would you do?
16. You are going on a date with this girl. When she picks you up, she tells you that two of her girl friends are coming too. You like her friends, but you are surprised they are coming because you wanted to spend some time alone. What would you do?
17. You are out on a first date with this guy. At the end of the date, he pulls his car up in front of your house and says, "I had a great time." You say, "I had fun, too." You would like to give him a goodnight kiss. What would you do?
18. You are out on a date with this girl. You are having a nice time, but it's getting late and you are kind of tired. You want to end the date, but you don't want her to think you don't like spending time with her. What would you do?
19. One day you are at the mall with your boyfriend and you run into a guy you dated a year ago. Later, your boyfriend asks you to tell him about your past relationships. What would you do?
20. You have plans to go out with your girlfriend after school today. Unfortunately, you have a horrible day in school. You still want to go out with your girlfriend, but you don't know if you will be much fun. What would you do?
21. One day, you are taking a walk with your boyfriend. All of a sudden, he seems kind of angry. You ask him what is wrong, but he says nothing. You would really like him to share his feelings with you. What would you do?
22. You have been dating this girl for three months and you really like her. In fact, you think you love her. You want to tell her how you feel about her, but just thinking about it makes you nervous. What would you do?
23. You and this guy have gone out on four dates. You really like him and would like him to be your boyfriend. The next time you are talking on the phone, you want to talk about commitment. What would you do?

24. Sometimes your girlfriend says things about other people that you don't agree with. One day, she starts talking about a teacher at school. You don't agree with what she is saying. What would you do?
25. You want your boyfriend to spend more time with you. It seems like every time you call him, he's over at a friend's house. Last weekend, you wanted to spend either Friday or Saturday night together, but he already had plans to hang out with his friends. What would you do?
26. You have dated this girl for four months. You still like her, but you think you might like to date other people. You want to break up with her. What would you do?
27. You broke up with your boyfriend about one month ago. You don't want to date him again, but you kind of miss his friendship. What would you do?
28. You and your girlfriend have been dating a long time. Lately, your relationship has become more physical. You have never talked about sex, but you think you should before things go any further. What would you do?
29. You and this guy have gone on a few dates together. Last time you went out, you ended up kissing for a while at the end of the date. You had a good time, but you know you are not ready to go much further physically. When you go out this weekend, you would like to tell him about what you are ready to do and what you are not ready to do sexually. What would you do?
30. You and your girlfriend have decided to have sex together. You haven't talked about birth control. One day, she calls you up and tells you her parents will be out of town this weekend. You think this might be a good time to talk about contraception. What would you do?
31. You and your boyfriend have decided to have sex. You have been told that before you have sex with somebody you should talk to him about sexually transmitted diseases. What would you do?
32. You get an after school job. At the job, you have to work in teams with other employees. The first day, you are to work with a girl you have never met before. What would you do?
33. Thursday, you have a huge test. Right before class, this girl catches you in the hall and says, "I forgot about the test! If I fail this test, I'm going to flunk the class. Will you push your paper to the side of the desk so I can see the answers?" What would you do?

34. You are one of only three girls in your English class. One day the class reads a short story together. One of the boys shares what he thinks the story is about. You disagree. You want to share your version of the story with the teacher, but you think most of the boys will disagree. What would you do?
35. You are in gym class. The teacher has given the class free time for the last 15 minutes. A girl in your class walks over to you dribbling a basketball and says, "I bet I can make more free throws than you." What would you do?
36. You are in the lunchroom eating with some friends. You want to say something to this guy who is in one of your classes. He is sitting at a table with several of his friends. What would you do?
37. You are hanging out with a group of friends (both girls and boys). Some of the group decides to go to a movie and the rest of the group decides to do something else. You don't want to go to a movie, but the other group is all guys. What would you do?
38. You hear that there is a new club forming at school. You go to the first meeting after school on Wednesday. As the meeting begins, you look around and realize that you are the only boy at the meeting. What would you do?
39. You need to get a physical exam. You have a few questions you want to ask the doctor about your health. The doctor walks into the examining room – and it's a male doctor. What would you do?
40. You are at a party with a bunch of friends. A girl friend comes over to you and offers you a beer. When you say no, she says, "Oh come on, I brought this over just for you. You have to drink it!" What would you do?
41. You and your boyfriend are over at his house. Your boyfriend starts talking about some weed he bought from another guy. You know you would get into big trouble if your parents found out that you had smoked pot. What would you do?
42. You are at a party with a bunch of friends. You notice that the girl you have a crush on is at the party. Later, she comes over to you and you talk to her for a while. She puts her arm around you and you think she might kiss you. You really like this girl, but you think she might be high. What would you do?
43. Last week, this guy at school started winking at you whenever you looked at him. This week, he started making kissing noises when you walk by. You are not interested in him and you told him to stop it. Today when you arrive to class, he says, "Hey sexy." What would you do?
44. A few weeks ago, a girl you work with started commenting on what you wear to work. One day, she complemented you on your shirt. Another day, she said blue

was a nice color on you. Yesterday, she said your pants fit, "nice and tight."
Afterward you felt really creepy. What would you do?

Appendix I
Debriefing Statement - Study 2

Thank you for participating. The information you gave us will be used to help other teens. If you have any further questions, please feel free to ask the University of Maine researcher that handed out this sheet or talk to (insert name of school staff person) at your school.

Below is a list of phone numbers for you to keep or pass along to a friend. Thank you for your time and your help!

Phone Help	1-800-245-8889
Rape Response Services	1-800-310-0000 or 989-5678
Spruce Run (Domestic Violence)	947-0496
InfoLine (Referral Service)	1-800-204-2803

Appendix J
Demographic Survey – Study 2

The following questions will be used to describe people involved in this study in general terms. For example, in my report on the study, I might say, "Participants ranged in age from 14 to 18 years. Most participants were white and 42% were sexually active."

If you feel uncomfortable answering any of the questions, leave them blank.

1. Age: _____

2. Race: _____

3. Are you dating someone? Yes No

If so, what is the sex of your partner? Male Female

4. Have you ever had sexual intercourse? Yes No

If so, at what age did you first have sexual intercourse? _____

Appendix K
Letter to Judges – Study 3

Dear

I am a fifth-year psychology graduate student at the University of Maine. For my dissertation, I am developing and beginning validation on a measure of adolescent heterosocial competence. Heterosocial skills are those skills used in social situations involving other-sex peers. Researchers believe that heterosocial skills deficits are related to such social problems as rape, unwanted touches, violence in relationships, teen pregnancy, and sexually transmitted diseases. However, the link between heterosocial skills deficits and the above phenomena are unclear as there is no validated measure of adolescent heterosocial skills.

I am asking you to help me in this important process. I am recruiting people who either work with teens and/or have special training in adolescent development who are willing to donate approximately one hour of their time. This hour would be spent reading social vignettes and rating actual teen responses to those vignettes for competence. Below is an example of a possible situation and responses:

You are at a school dance. You notice a boy across the room that you recognize from the lunch room, but you have never been introduced to him. You want to meet him. What do you do?

Please rate the following responses to the above vignette on a 5-point scale 1 = not competent, 5 = competent.

1. Ask all my friends if they knew him and try to find one to introduce me. _____
2. Walk over to him and say, "I recognize you from the lunch room." Then Tell him my name and ask him his. _____
3. I would yell "Hey you!" and then walk over and tell him my name. _____
4. I wouldn't do anything. _____

I will be calling you this week to discuss the project. If you agree to participate, I will send you a packet complete with data and directions. Feel free to call me with questions at home (207) 947-0862 or at my office (207) 581-2058.

Thank you for your time,

Rachel L. Grover
Doctoral Candidate

Appendix L
Demographic Survey – Study 3

Please answer the following background information questions.

Age: _____

Sex: _____

Race: _____

Professional Title: _____

Years spent working with or researching adolescents: _____

Appendix M
Vignettes Excluded from the Final Measure

6. You have been friends with this girl for about a year. Today you are really upset because you had a big fight with your parents last night. You would like to talk about the fight with a friend, but you don't usually talk about personal problems with girl friends. Your friend asks, "Why are you so quiet?" What would you do?
7. You are eating lunch with a guy friend. While you are eating, he asks you if your bestfriend is okay. You know that your bestfriend's parents are getting a divorce and that she is really upset about it. You also know that she asked you not to tell anyone else. What would you do?
32. You get an after school job. At the job, you have to work in teams with other employees. The first day, you are to work with a girl you have never met before. What would you do?
39. You need to get a physical exam. You have a few questions you want to ask the doctor about your health. The doctor walks into the examining room – and it's a male doctor. What would you do?

Appendix N
Informed Consent – Study 4

Dear Parent/Guardian,

Your teen is being asked to participate in a University of Maine research project! We are interested in asking local teens about friendships and relationships in adolescence. As you may have noticed, teenagers spend a lot of time with their friends. In fact, learning effective social skills is one of the most important developmental tasks teenagers face. We are interested in learning about the social skills that teenagers use in situations involving other-sex friends (in the classroom, as friends, and in dating situations). We believe your teen can help us help other teens by participating in our study.

What's involved? This project involves an hour-long series of surveys. The surveys measure social skills in situations involving other-sex friends and dating partners. The surveys ask about conflict in teen relationships, anxiety in social situations, and general teen social skills. The surveys also include a peer acceptance measure that requires teens to rate (privately) how much they enjoy spending time with each person in their grade on a scale of 1(don't enjoy) to 5 (enjoy a lot). Only the names of those teens that have permission to participate in this project will be included.

In addition, the survey contains a few optional background questions to help us describe those teens that participated in the study in general terms. These optional questions ask your teen's age, race, if your teen is dating someone, and if your teen has ever had sexual intercourse. Participating teens will be told that they do not have to answer any questions they do not want to. Your teen can end participation at any time.

Will answers be private? Names will not be attached to the data collected and the information will be used only for research purposes. There will be no way to connect your teen to his or her responses. The returned surveys will be kept in a locked laboratory and will eventually be destroyed.

Risks/Benefits: We have taken care to consult with school nurses and guidance counselors in the construction of this project. The risk involved is no greater than what teens experience in daily school life. However, your teen will be provided with the name of a staff person at school with whom he or she can talk more about social interactions with the other sex. Also, we are both available to meet with teens to discuss their concerns. This research will be very valuable in helping us learn the kinds of social situations teens find difficult. That knowledge will help psychologists and teachers design more effective education programs.

What do I need to do? Please fill out the second sheet and return to your teen's teacher as soon as possible.

Questions? Please feel free to call Rachel Grover (581-2058) or Dr. Douglas Nangle (581-2045) if you have any questions. We love to talk about our research!

We hope that you will allow your teen to be involved in this project. Thank you very much for your consideration.

Sincerely,

Rachel L. Grover
Doctoral Candidate

Douglas W. Nangle, Ph.D.
Associate Professor

Parent/Guardian consent for the University of Maine "Teen Friendships & Relationships Project."

_____ YES, my teen can participate.

_____ NO, my teen cannot participate.

Teen's Name: _____

Teacher's Name: _____

Grade: _____

Parent/Guardian Signature: _____

Appendix O
Assent Script – Study 4

Hi, my name is _____, and I am from the University of Maine. I am here today because I want to learn about teenagers. I am most interested in moments that teens have a difficult time interacting with the other sex. These could be times when someone is nervous or not sure how to act or what to do. For example, some teens may have a difficult time just talking to someone of the other sex. Other teens may think it is a difficult situation when a boyfriend or girlfriend gets jealous of the time you spend with your friends.

This project involves an hour-long series of surveys. The surveys ask about situations involving friends, parents and dating partners. The first two surveys describe social situations and ask you to circle what you would do in that situation. The third survey asks about conflict in dating relationships. It asks you to check how often you have tried different ways to settle arguments with your boyfriend or girlfriend. If you have not dated anyone in the last 6 months, you may skip this survey. The fourth survey describes social situations and asks you to circle how hard it would be for you to be in that situation. The last survey asks you to rate how much you enjoy spending time with each person in your grade on a scale of 1 (don't enjoy) to 5 (enjoy a lot). Only the names of those teens that have permission to participate in this project are included.

On the last page of the packet, there are some background questions that will be used to describe people involved in the study in general terms. They ask your age, race, if you are dating, and if you have ever had sexual intercourse. For example, in my report on the study, I might say, "Participants ranged in age from 14 to 18 years. Most participants were white and 42% reported having sexual intercourse."

If there are any questions you do not want to answer, just draw an X through it and don't answer it. All your answers are confidential. This means that first, they are anonymous – your name is not on the survey. Please do not write your name on the survey. Second, your answers are private. This means that I will not show your teacher or anyone in the school anything that you write.

We sent a letter home to your parents or guardians and they agreed to let you participate, but we would like to have your permission also. When I hand out the survey, please let me know if you want to participate.

Appendix P
Debriefing Statement - Study 4

Thank you for participating. The information you gave us will be used to help other teens. If you have any further questions, please feel free to ask the University of Maine researcher that handed out this sheet or talk to (insert name of school staff person) at your school.

Below is a list of phone numbers for you to keep or pass along to a friend. Thank you for your time and your help!

Phone Help	1-800-245-8889
Rape Response Services	1-800-310-0000 or 989-5678
Spruce Run (Domestic Violence)	947-0496
InfoLine (Referral Service)	1-800-204-2803

Appendix Q
Demographic Sheet – Study 4

The following questions will be used to describe people involved in this study in general terms. For example, in my report on the study, I might say, "Participants ranged in age from 14 to 18 years. Most participants were white and 42% were sexually active."

If you feel uncomfortable answering any of the questions, leave them blank.

1. Age: _____

2. Race: _____

3. Are you dating someone? Yes No

If so, what is the sex of your partner? Male Female

4. Have you ever had sexual intercourse? Yes No

If so, at what age did you first have sexual intercourse? _____

Below are some questions about the adults that live in your house.

5. How many adults are there in your household? _____

Adult #1:

Relationship to you (ex. Mother, Father, Step-mother): _____

Sex: _____

Occupation (Job): _____

Level of school completed (Circle one):

Junior High High school Some College College Graduate School

Adult #2:

Relationship to you (ex. Mother, Father, Step-mother): _____

Sex: _____

Occupation (Job): _____

Level of school completed (Circle one):

Junior High High school Some College College Graduate School

Appendix R

The Measure of Heterosocial Competence

Directions: For each question, select ONE item that best matches what you would do in each situation.

1. There is a new guy in your math class. The teacher assigns him a seat near you. You would like to introduce yourself. What would you do?
 - ☐ Walk up to him and say, "Hi, my name is..."
 - ☐ Wait for him to speak to me.
 - ☐ Say hello and see what happens from there.
 - ☐ Wait for an opportunity to say something funny.
2. You are at a school dance. You notice a guy across the room that you would like to talk to. You know his name, but you have never talked to him before. What would you do?
 - ☐ Ask him to dance and then make conversation while dancing.
 - ☐ Go up to him and introduce myself.
 - ☐ I would be too shy to go up and talk to him.
 - ☐ Get a friend to walk over with me and then start talking to him.
3. You are standing outside after school with a bunch of friends. You would like to call one of the guys, but you don't have his phone number. What would you do?
 - ☐ Later, I would ask one of my friends for his number or call information.
 - ☐ Make a remark that would hint for the number.
 - ☐ Go up to him and ask him for it.
 - ☐ I wouldn't do anything.
4. You talk to this guy during class sometimes and you would like to talk to him more. One evening, you look up his number in the phone book. What would you do?
 - ☐ Call him, talk for a while, and then ask him out..
 - ☐ Write down the number, but not call him.
 - ☐ Call him and ask if it was ok to call, then start talking about regular things.
 - ☐ Call him and talk about whatever comes up. Try to make sure there are no awkward pauses.
5. You have had a crush on a guy in school for weeks. You want to find out if he likes you. What would you do?
 - ☐ Call him a lot and try to get him to like me.
 - ☐ I wouldn't do anything.
 - ☐ Ask my friends what he says about me.
 - ☐ Ask him if he likes me and if we could get to know each other better.
6. One of your guy friends asks you if you want to go to a movie Friday night with a group of friends. You already have plans to go out with your boyfriend on Friday. When you tell your friend, he says, "You are always spending time with your boyfriend. What about your friends?" What would you do?
 - ☐ Apologize and say, "I already made plans, but I would love to hang out with friends on Saturday night.
 - ☐ Say, "You're right." Then reschedule with my boyfriend and spend time with my friends Friday night.
 - ☐ Go out with my boyfriend as planned, but plan on spending next Friday night with friends.
 - ☐ Say, "Why don't we all hang out together?"
7. You are having lunch with a group of friends when one of the guys starts saying something you really disagree with. What would you do?
 - ☐ Argue with him until I convince him that I am right.
 - ☐ Argue with him. But if things get too serious, then I would crack a joke.
 - ☐ Talk to other people in the group.
 - ☐ Give my opinion, but at the same time, not put down his opinion.

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

8. You are concerned that one of your guy friends may like you as more than a friend. You enjoy his company, but you do not want to date him. What would you do?
 - ☐ Drop hints that I only like him as a friend, like saying, "You're a great friend. It's nice to have a guy friend who isn't a boyfriend."
 - ☐ Nothing.
 - ☐ Tell him that he is a good friend, but I am not interested in him romantically.
 - ☐ Talk about other guys and how much I like them.
9. You are good friends with this guy. Recently, you can't seem to stop thinking about him. You realize that you like him as more than a friend. What would you do?
 - ☐ Give him hints that I like him.
 - ☐ Nothing.
 - ☐ Ask him out.
 - ☐ Tell him how I feel and say I don't want to lose his friendship if he doesn't feel the same way.
10. One of your guy friends asks you to go to the mall one afternoon. You promised you would help out another friend this afternoon. Impatient, he says, "Come on, don't let me down. A bunch of us are going. It would be really fun." You try to say no, but he keeps pressuring you. What would you do?
 - ☐ Say, "Sorry, I can't. Maybe some other time."
 - ☐ Tell him he is not being fair by asking me over and over and that I already have plans.
 - ☐ Go to the mall with him.
 - ☐ Call the other friend and schedule another time you could help her out.
11. You have a huge crush on a boy in your English class. You have liked him for about a month. You talk in class and sometimes he stops you in the hall to say hello. You would like to ask him out. What would you do?
 - ☐ Ask if he wanted to go somewhere sometime.
 - ☐ Have a friend ask him out for me.
 - ☐ When we are talking in class, I would bring up a movie and see if he is interested in it. If he is, then I'd ask him to see it with me.
 - ☐ Ask him what he is doing this weekend. If he says, "Nothing," then ask him if he wants to do something.
12. One day, a guy you know asks you out on a date. You want to turn him down, but you don't want to hurt his feelings. What would you do?
 - ☐ Tell him that I'm not interested in dating right now, but that I value our friendship and let's work on that.
 - ☐ Tell him I like someone else and I'm very sorry.
 - ☐ Tell him I will go with him but only as a friend.
 - ☐ Tell him I am sick.
13. You are out in a first date with this guy. Suddenly you realize that neither of you has said anything for a while. You are getting a little uncomfortable. What would you do?
 - ☐ Break the silence by pointing out that neither of us has said anything.
 - ☐ Wait for him to start a conversation.
 - ☐ Ask him what he's thinking about.
 - ☐ Try to start a conversation by asking something like, "How did school go today?"

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

14. You are going on a date with this guy. When he picks you up, he tells you that two of his guy friends are coming too. You like his friends, but you are surprised they are coming because you wanted to spend some time alone. What would you do?
 - ☐ Go along with it and talk to him later to make another date.
 - ☐ Not go. Say, "I thought we would be alone. This will be awkward."
 - ☐ Act normal and hope it doesn't happen again.
 - ☐ Tell him I enjoy his friends, but I was looking forward to spending time alone with him.
15. You are out on a first date with this guy. At the end of the date, he pulls his car up in front of your house and says, "I had a great time." You say, "I had fun, too." You would like to give him a goodnight kiss. What would you do?
 - ☐ Wait for him to kiss me.
 - ☐ Lean in and see what he does. According to his reaction, kiss him on the cheek or the mouth.
 - ☐ Don't kiss him this time, but tell him that I would like to. Then next time, kiss him.
 - ☐ Ask if I could kiss him. Kiss him if he says yes.
16. You are out on a date with this guy. You are having a nice time, but it's getting late and you are kind of tired. You want to end the date, but you don't want him to think you don't like spending time with him. What would you do?
 - ☐ Say, "It's getting late and I'm tired. I had fun and like spending time with you. We should get together again soon."
 - ☐ Tell him I need to go home and sleep. Call him the next day to let him know I didn't ditch him.
 - ☐ Wait until he wants to go home.
 - ☐ Tell him I have a curfew and have to go home.
17. One day you are at the mall with your boyfriend and you run into a guy you dated a year ago. Later, your boyfriend asks you to tell him about your past relationships. What would you do?
 - ☐ Be honest with him. After telling him, smile and say, "I'm really glad I'm with you now."
 - ☐ Tell him all my past boyfriends were losers and they didn't mean anything.
 - ☐ Tell him that I'd like to keep that information to myself. Hopefully, he'd understand.
 - ☐ Tell him it's in the past and I'm over the other guy. But if he keeps asking, I'd tell him about the other relationships.
18. You have plans to go out with your boyfriend after school today. Unfortunately, you have a horrible day in school. You still want to go out with your boyfriend, but you don't know if you will be much fun. What would you do?
 - ☐ Act like nothing is wrong. Go out and not let him know I had a bad day.
 - ☐ Talk about my day with my boyfriend and then try to make the rest of the day fun.
 - ☐ Tell him we need to postpone our plans.
 - ☐ Tell him what happened and then ask if he still wants to go out with me today.
19. One day, you are taking a walk with your boyfriend. All of a sudden, he seems kind of angry. You ask him what is wrong, but he says nothing. You would really like him to share his feelings with you. What would you do?
 - ☐ Say, "Something is wrong and maybe we should talk about it. It's fine if you don't want to talk, but I can't help you if I don't know what is wrong."
 - ☐ Try not to pressure him into telling me, but just show concern towards him so that he might open up and tell me.
 - ☐ Tell him if he can't be open with me, then I don't want a relationship with him.
 - ☐ Do things to take his mind off of whatever is bothering him.

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

20. You have been dating this guy for three months and you really like him. In fact, you think you love him. You want to tell him how you feel about him, but just thinking about it makes you nervous. What would you do?
- ☐ Write a letter and give it to him.
 - ☐ Wait another couple of months to make sure the feeling are for real.
 - ☐ Wait until he says it first.
 - ☐ Say, "I've never felt this way about a guy before."
21. You and this guy have gone out on four dates. You really like him and would like him to be your boyfriend. The next time you are talking on the phone, you want to talk about commitment. What would you do?
- ☐ Ask him how he thinks things are going and if he thinks of us as anything more. Then tell him how I feel.
 - ☐ Say, "So how do you feel about us?"
 - ☐ Talk about the past four dates and try to bring up the commitment word in a casual way so as not to force it on him.
 - ☐ Not say anything. If he wants to commit, he will say something.
22. Sometimes your boyfriend says things about other people that you don't agree with. One day, he starts talking about a teacher at school. You don't agree with what he is saying. What would you do?
- ☐ Be polite but tell him you think he is wrong.
 - ☐ Tell him not to talk about the teacher.
 - ☐ Not say anything.
 - ☐ Talk to him alone sometime and tell him how I feel.
23. You want your boyfriend to spend more time with you. It seems like every time you call him, he's over at a friend's house. Last weekend, you wanted to spend either Friday or Saturday night together, but he already had plans to hang out with his friends. What would you do?
- ☐ Say, "What's the point of us being together if I never get to see you and you never have time for us. Maybe you should think about whether this relationship is something you want."
 - ☐ Say, "I understand friends can be more important at times but I'd like to see you and spend more time with you."
 - ☐ Ask, "Why do your friends get more attention than I do?"
 - ☐ Tell him that we need to spend more time together, even if it is with his friends.
24. You have dated this guy for four months. You still like him, but you think you might like to date other people. You want to break up with him. What would you do?
- ☐ Tell him how I feel and that I want to move on.
 - ☐ Tell him I feel like we should both see other people, but I would still like to be close friends.
 - ☐ Tell him I still like him but I need to have a little space and see a few other people before I can know for sure how much I like him.
 - ☐ Stay with him because there is no use in trying to date other people if you have been with the same person for four months.
25. You broke up with your boyfriend about one month ago. You don't want to date him again, but you kind of miss his friendship. What would you do?
- ☐ Say, "I miss hanging out with you and our long talks. I think we could be friends if you feel the same way, but if it's too hard I understand."
 - ☐ Call him and explain that I want to be his friend, but that's it.
 - ☐ Try talking to him and just be friendly.
 - ☐ Nothing.

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

26. You and your boyfriend have been dating a long time. Lately, your relationship has become more physical. You have never talked about sex, but you think you should before things go any further. What would you do?
- ☐ () Tell him I want to have sex and ask how he feels about it.
 - ☐ () Talk about it with him and make sure we agree.
 - ☐ () I couldn't talk about it unless he brought it up.
 - ☐ () Say, "Look, before we get more physical, can we talk about what we are doing and how we stand?"
27. You and this guy have gone on a few dates together. Last time you went out, you ended up kissing for a while at the end of the date. You had a good time, but you know you are not ready to go much further physically. When you go out this weekend, you would like to tell him about what you are ready to do and what you are not ready to do sexually. What would you do?
- ☐ () Tell him it's going too fast and I want to get to know him better,
 - ☐ () Tell him exactly how I feel so there are no misunderstandings.
 - ☐ () Ask how he feels first, then tell him how I feel.
 - ☐ () It would be hard to bring the subject up. I would just hope he didn't want to go further.
28. You and your boyfriend have decided to have sex together. You haven't talked about birth control. One day, he calls you up and tells you his parents will be out of town this weekend. You think this might be a good time to talk about contraception. What would you do?
- ☐ () Tell him I'll come over. I would have condoms with me when I went over.
 - ☐ () Consider going on birth control pills and ask him if he would wear a condom.
 - ☐ () Go over this weekend and wait until he brings it up.
 - ☐ () Ask him what we should use for protection.
29. You and your boyfriend have decided to have sex. You have been told that before you have sex with somebody you should talk to him about sexually transmitted diseases. What would you do?
- ☐ () Ask him if he has ever had sex before and ask about the past partners. Make sure he uses protection.
 - ☐ () Ask him who he has had sex with and if he has any diseases.
 - ☐ () Ask how many other people he has had sex with.
 - ☐ () Ignore talking about this and assume he knows.
30. Thursday, you have a huge test. Right before class, this guy catches you in the hall and says, "I forgot about the test! If I fail this test, I'm going to flunk the class. Will you push your paper to the side of the desk so I can see the answers?" What would you do?
- ☐ () Say, "No, that's cheating and I don't want to get in trouble. I can help you study if you want some help."
 - ☐ () I'd go along with it.
 - ☐ () Say, "Just do your best and you'll do fine."
 - ☐ () Just smile and say, "You should have studied."
31. You are one of only three girls in your English class. One day the class reads a short story together. One of the boys shares what he thinks the story is about. You disagree. You want to share your version of the story with the teacher, but you think most of the boys will disagree. What would you do?
- ☐ () Keep my opinion to myself.
 - ☐ () Tell the teacher what I thought after class.
 - ☐ () Say what I have to say, but don't purposefully try to offend anyone.
 - ☐ () Raise my hand and tell my version.

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

32. You are in gym class. The teacher has given the class free time for the last 15 minutes. A guy in your class walks over to you dribbling a basketball and says, "I bet I can make more free throws than you." What would you do?
- ☐ Say, "You're on, and if I win, you have to hang out with me on Friday."
 - ☐ Say, "Maybe you can, but we'll never find out unless you shoot."
 - ☐ Say, "I don't really care."
 - ☐ I'd play with him.
33. You are in the lunchroom eating with some friends. You want to say something to this guy who is in one of your classes. He is sitting at a table with several of his friends. What would you do?
- ☐ I wouldn't do anything.
 - ☐ Wait until he wasn't with so many friends.
 - ☐ Go sit at their table and join in with the conversation.
 - ☐ Pass him a note.
34. You are hanging out with a group of friends (both girls and boys). Some of the group decides to go to a movie and the rest of the group decides to do something else. You don't want to go to a movie, but the other group is all guys. What would you do?
- ☐ Try to convince a girl to come with me and then go with the guys.
 - ☐ Go to the movies.
 - ☐ Say, "I'll stay home tonight."
 - ☐ Say, "Can we do both? Or one now and the other later?" Talk it out.
35. You hear that there is a new club forming at school. You go to the first meeting after school on Wednesday. As the meeting begins, you look around and realize that you are the only girl at the meeting. What would you do?
- ☐ If it was a good club, I'd stay in it.
 - ☐ Leave.
 - ☐ Stay in the club and tell no one outside the club that I am the only girl.
 - ☐ Get some of my friends to join.
36. You are at a party with a bunch of friends. A guy friend comes over to you and offers you a beer. When you say no, he says, "Oh come on, I brought this over just for you. You have to drink it!" What would you do?
- ☐ Drink it.
 - ☐ Tell him why I am not drinking.
 - ☐ Say, "No thanks," and walk away.
 - ☐ Say, "Maybe later," and don't do it later.
37. You and your boyfriend are over at his house. Your boyfriend starts talking about some weed he bought from another guy. You know you would get into big trouble if your parents found out that you had smoked pot. What would you do?
- ☐ Say, "No, I'm not into that stuff."
 - ☐ Say, "Okay," and hope my parents didn't find out.
 - ☐ Say, "No thanks, I'm all set."
 - ☐ Get up and leave. I don't want to risk getting in trouble.

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

38. You are at a party with a bunch of friends. You notice that the guy you have a crush on is at the party. Later, he comes over to you and you talk to him for a while. He puts his arm around you and you think he might kiss you. You really like this guy, but you think he might be high. What would you do?
- ☐ Say, "Maybe later."
 - ☐ If he kisses me, say, "Is this because you are high or because you like me?"
 - ☐ Say, "Talk to me when you aren't high."
 - ☐ Act like I don't know what he is doing and start talking to someone else.
39. Last week, this guy at school started winking at you whenever you looked at him. This week, he started making kissing noises when you walk by. You are not interested in him and you told him to stop it. Today when you arrive to class, he says, "Hey sexy." What would you do?
- ☐ Feel flattered and smile.
 - ☐ Ask him to please stop and if he doesn't, go talk to an adult.
 - ☐ Tell him that I am not interested and ignore him.
 - ☐ Play along and laugh so it would look like I thought he was joking.
40. A few weeks ago, a guy you work with started commenting on what you wear to work. One day, he complimented you on your shirt. Another day, he said blue was a nice color on you. Yesterday, he said your pants fit, "nice and tight." Afterward you felt really creepy. What would you do?
- ☐ Nothing.
 - ☐ Not wear anything tight again.
 - ☐ Tell him to stop looking at me and tell a friend at work.
 - ☐ Tell him I feel uncomfortable. If he doesn't stop, tell my supervisor.

Appendix S
The Conflict in Adolescent Relationships Inventory (Female Version)

The following questions ask you about things that may have happened to you with your boyfriend while you were having an argument. Check the box that is your best estimate of how often these things have happened with your current or ex-boyfriend in the past year. Please remember that all answers are confidential. As a guide use the following scale.

Never: this has never happened in your relationship
Seldom: this has happened only 1-2 times in your relationship
Sometimes: this has happened about 3-5 times in your relationship
Often: this has happened 6 times or more in your relationship

During a conflict or argument with my boyfriend in the past year:

	Never	Seldom	Sometimes	Often
1. I gave reasons for my side of the argument.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He gave reasons for his side of the argument.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I touched him sexually when he didn't want me to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He touched me sexually when I didn't want him to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I tried to turn his friends against him.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He tried to turn my friends against me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I did something to make him feel jealous.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He did something to make me feel jealous.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I destroyed or threatened to destroy something he valued.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He destroyed or threatened to destroy something I valued.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

During a conflict or argument with my boyfriend in the past year:

6. I told him that I was partly to blame.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He told me that he was partly to blame.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I brought up something bad that he had done in the past.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He brought up something bad that I had done in the past.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I threw something at him.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He threw something at me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I said things just to make him angry.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He said things just to make me angry.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I gave reasons why I thought he was wrong.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He gave reasons why he thought I was wrong.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Never: This has never happened in your relationship
Seldom: this has happened only 1-2 times in your relationship
Sometimes: this has happened about 3-5 times in your relationship
Often: this has happened 6 times or more in your relationship

During a conflict or argument with my boyfriend in the past year:

	Never	Seldom	Sometimes	Often
11. I agreed that he was partly right.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He agreed that I was partly right.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I spoke to him in a hostile or mean tone of voice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He spoke to me in a hostile or mean tone of voice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I forced him to have sex when he didn't want to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He forced me to have sex when I didn't want to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I offered a solution that I thought would make us both happy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He offered a solution that he thought would make us both happy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

During a conflict or argument with my boyfriend in the past year:

15. I threatened him in an attempt to have sex with him.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He threatened me in an attempt to have sex with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I put off talking until we calmed down.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He put off talking until we calmed down.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I insulted him with put-downs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He insulted me with put-downs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I discussed the issue calmly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He discussed the issue calmly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I kissed him when he didn't want me to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He kissed me when I didn't want him to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I said things to his friends about him to turn them against him.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He said things to my friends about me to turn them against me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

During a conflict or argument with my boyfriend in the past year:

21. I ridiculed or made fun of him in front of others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He ridiculed or made fun of me in front of others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. I told him how upset I was.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He told me how upset he was.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. I kept track of who he was with and where he was.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He kept track of who I was with and where I was.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. I blamed him for the problem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He blamed me for the problem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. I kicked, hit or punched him.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He kicked, hit or punched me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Never: This has never happened in your relationship
Seldom: this has happened only 1-2 times in your relationship
Sometimes: this has happened about 3-5 times in your relationship
Often: this has happened 6 times or more in your relationship

During a conflict or argument with my boyfriend in the past year:

	Never	Seldom	Sometimes	Often
26. I left the room to cool down.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He left the room to cool down.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. I gave in, just to avoid conflict.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He gave in, just to avoid conflict.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. I accused him of flirting with another girl.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He accused me of flirting with another guy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. I deliberately tried to frighten him.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He deliberately tried to frighten me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. I slapped him or pulled his hair.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He slapped him or pulled my hair.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

During a conflict or argument with my boyfriend in the past year:

31. I threatened to hurt him.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He threatened to hurt me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. I threatened to end the relationship.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He threatened to end the relationship.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. I threatened to hit him or throw something at him.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He threatened to hit me or throw something at me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. I pushed, shoved, or shook him.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He pushed, shoved, or shook me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. I spread rumors about him.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
He spread rumors about me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Never: This has never happened in your relationship

Seldom: this has happened only 1-2 times in your relationship

Sometimes: this has happened about 3-5 times in your relationship

Often: this has happened 6 times or more in your relationship

Appendix T
The Survey of Heterosexual Interactions - M

Instructions: Please circle the appropriate number in the following situations. Respond as if you were actually in each of the situations.

1. You want to call a girl for a date. This is the first time you are calling her up as you only know her slightly. When you get ready to make the call, your mother comes into the room, sits down at the kitchen table, and begins reading a magazine. In this situation you would:

1	2	3	4	5	6	7
be unable to call in every case			be able to call in some cases		be able to call in every case	

2. You are at a dance. You see a cute girl who you do not know. She is standing alone, and you would like to dance with her. You would:

1	2	3	4	5	6	7
be unable to ask her in every case			be able to ask her in some cases		be able to ask her in every case	

3. You are at a party, and you see two girls talking. You do not know these girls, but you would like to know one of them better. In this situation you would:

1	2	3	4	5	6	7
be unable to start a conversation in every case			be able to start a conversation in some cases		be able to start a conversation in every case	

4. You are at a party where there is also dancing. You see two girls sitting at a table. One, whom you don't know, is talking to a boy who is standing by the table. These two go over to dance leaving the other girl sitting alone. You have seen this girl in school, but do not really know her. You would like to go over and talk with her (but wouldn't like to dance). In this situation you would:

1	2	3	4	5	6	7
be unable to go over and talk to her in every case			be able to go over and talk to her in some cases		be able to go over and talk to her in every case	

5. On a work break at your job you see a girl who also works there and is about your age. You would like to talk to her, but you do not know her. You would:

1	2	3	4	5	6	7
be unable to talk to her in every case			be able to talk to her in some cases		be able to talk to her in every case	

6. You are on a crowded bus. A girl you know only slightly is sitting in front of you. You would like to talk to her, but you notice the boy sitting next to her is watching you. You would:

1	2	3	4	5	6	7
be unable to talk to her in every case			be able to talk to her in some cases		be able to talk to her in every case	

7. You are sitting at a dance. You see a cut girl whom you do not know standing in a group of four girls. You would like to dance. In this situation you would:

1	2	3	4	5	6	7
be unable to ask in every case			be able to ask in some cases		be able to ask in every case	

8. You are in the lunch room eating lunch. A girl whom you do not know sits down beside you. You would like to talk to her. She asks you if she could have one of your napkins. In this situation you would give her a napkin:

1	2	3	4	5	6	7
but be unable to start a conversation with her			and in some cases be able to start a conversation		and be able to start a conversation	

9. A friend of yours is going out with his girlfriend this weekend. He wants you to come along and gives you the name and phone number of a girl he says would be a good date. You are not doing anything this weekend. In this situation you would:

1	2	3	4	5	6	7
be unable to call in every case			be able to call in some cases		be able to call in every case	

10. You are in the library. You decide to take a break, and as you walk around the library you see a girl whom you know only casually. She is sitting at a table and appears to be studying. You decide that you would like to ask her to get a coke with you. In this situation you would:

1	2	3	4	5	6	7
be unable to ask him in every case			be able to ask him in some cases		be able to ask him in every case	

11. You want to call a girl for a date. You find this girl cute, but you do not know her. You would:

1	2	3	4	5	6	7
be unable to call in every case			be able to call in some cases		be able to call in every case	

12. After one of your high school classes you see a girl whom you know. You would like to talk to her, however, she is walking with a couple of other girls you do not know. In this situation you would:

1	2	3	4	5	6	7
be unable to talk to her in every case			be able to talk to her in some cases		be able to talk to her in every case	

13. It is the first day of class. The students are assigned seats. On one side of you, there is a girl you do not know, on the other is a boy you do not know. In this situation you would:

1	2	3	4	5	6	7
be unable to begin a conversation with the girl and talk only with the boy			be able to begin a conversation with the girl in some cases, but talk mostly to the boy		be able to begin a conversation in every case and be able to talk as freely with the girl as with the boy	

14. After school one day, you are in the hallway waiting for a friend. As you are waiting for him, a girl whom you know well walks by with another girl whom you have never seen before. The girl you know says hello and begins to talk to you. Suddenly, she remembers that she left something in her locker. Just before she leaves you she tells you the other girl's name. In this situation you would:

1	2	3	4	5	6	7
find it very difficult to begin a conversation with the other girl			find it only slightly difficult to begin a conversation		find it easy to begin and continue a conversation	

15. You are at a party at a friend's house. You see a girl who has come alone. You don't know her, but you would like to talk to her. In this situation you would:

1	2	3	4	5	6	7
be unable to go over and talk to her in every case			be able to go over and talk to her in some cases		be able to go over and talk to her in every case	

16. You are getting your books out of your locker at school. When you are there you notice a new girl is putting her books in the locker next to yours. In this situation you would:

1	2	3	4	5	6	7
be unable begin a conversation in every case			be able to begin a conversation in some cases		be able to begin a conversation in every case	

17. You are at a music store and see a girl that you were once introduced to. That was several months ago, and now you have forgotten her name. You would like to talk to her. In this situation you would:

1	2	3	4	5	6	7
be unable to start a conversation with her in every case			be able to start a conversation with her in some cases		be able to start a conversation with her in every case	

18. You are in the school cafeteria for lunch. You have gotten your meal and are now looking for a place to sit down. Unfortunately, there are no empty tables. At one table, however, there is a girl sitting alone. In this situation you would:

1	2	3	4	5	6	7
wait until another place was empty and then sit down			ask the girl if you could sit at the table, but not say anything more to her		ask the girl if you could sit at the table and then start a conversation	

19. A couple of weeks ago you had a first date with a girl you now see walking down the hall toward you. For some reason you haven't seen each other since then. You would like to talk to her, but you aren't sure what she thinks of you. In this situation you would:

1	2	3	4	5	6	7
walk by without saying anything			walk up to her and say something in some cases		walk up to her and say something in every case	

20. Generally, in most social situations involving girls whom you do not know, you would:

1	2	3	4	5	6	7
be unable to start a conversation			be able to start a conversation in some cases		be able to start a conversation in every case	

Appendix U

The Measure of Adolescent Social Performance

Instructions: The following pages describe situations that often happen to people your age. Read each situation and the four responses that go with it. Put an 'X' by the one response that is most like what you would do or say. This is not a test of what you should do. So be honest and answer every item, putting only one 'X' for each situation.

MASP-MALE

- 1) You call a friend and ask, "Hey, want to go see that new movie showing at the mall?" He says, "I'm not feeling well, I think I'll just stay home." The next day you find out he had already seen the movie and wasn't sick at all.
 - ☐ a. I'd might get mad, but I'd also start thinking he didn't like hanging around me.
 - ☐ b. I'd say, "Tell me the truth next time. I'll understand."
 - ☐ c. I wouldn't say anything. He was just trying to find a nice way to say no.
 - ☐ d. I'd tell him not to lie to me anymore.

- 2) You've been nice to this guy in one of your classes even though he's sort of weird. Even when you're not in class, he hangs around while you're talking to your friends. You wish he wouldn't do that. Now, you're with some friends and he walks up.
 - ☐ a. I'd wait until we were alone and then I'd tell him how I feel.
 - ☐ b. I'd ignore him until he figured out we don't want him in our group.
 - ☐ c. I'd get mad and tell him to leave us alone.
 - ☐ d. I wouldn't say anything mean, but in class I would stop being so nice to him.

- 3) Your friends are over and everybody is having fun. Your brother and sister show up and start calling you by nickname that you hate. They call you the nickname to embarrass you in front of your friends.
 - ☐ a. I would ignore them and act like it didn't bother me.
 - ☐ b. I'd say, "If you don't shut up, I'm going to hit you."
 - ☐ c. I'd say, "Shut up. You know you're just trying to embarrass me."
 - ☐ d. I would call them off to the side and ask them to quit.

- 4) You have a lot of homework to do for tomorrow. You have a doctor's appointment after school and you're hoping to go to a basketball game tonight. You're trying to figure out when you're going to do all of your homework.
 - ☐ a. I'd stay up late after the basketball game and do it then.
 - ☐ b. I'd try to do some at school and while I'm waiting at the doctor's office.
 - ☐ c. I'd do it on my free time and if I didn't finish, I'd skip the basketball game.
 - ☐ d. I just wouldn't do my homework.

- 5) You're in a bad mood. Nothing bad really happened- you just don't want to talk to anybody. Your parents say, "Is something wrong?" and "Tell us what's the matter." You wish they would leave you alone.

☐ a. I'd say "Go away! Why do you have to ask so many questions?"
☐ b. I'd tell them I was tired and that I need some time alone.
☐ c. I'd say nothing is wrong and then tell them to leave me alone.
☐ d. I'd say, "I'm just in a bad mood. I don't know why. I guess I need some time to myself."

- 6) A friend of yours is a lot of fun and is always making you laugh. Some of your friends can't stand him. One of them says, "Why do you hang around that jerk?"

☐ a. I'd say, "Just because you don't like him doesn't mean I can't like him."
☐ b. I'd say, "Shut up. He's my friend. If you don't like him, tough."
☐ c. I'd say, "He's not really a jerk. He just acts crazy sometimes. He makes me laugh."
☐ d. I would just ignore the person who said that.

- 7) Last night, a neighbor needed you to watch one of her kids. When you go to your history class you remember that you have a test today. You're not ready for the test.

☐ a. I would ask the teacher for some more study time.
☐ b. I'd act sick and check out during class.
☐ c. I'd take the test. It was my fault that I didn't study and the teacher won't accept that excuse.
☐ d. I'd ask my teacher if I could take the test tomorrow. Even if I get some points off, it's better than getting an F.

- 8) Your parents tell you to clean up your room. After you've finished, one of them looks at it and says, "You didn't clean that room. Your junk is all over the place. Do it again and do it right."

☐ a. I would do it again and do it right.
☐ b. I'd do it again but first I'd find out what "junk" they're talking about.
☐ c. I'd say, "No way. I already cleaned it."
☐ d. I'd say, "It's my room and it's clean enough for me."

- 9) You did something very embarrassing in front of a lot of people at school. Your friend thought it was funny and laughed at you the way everybody else did. You got really mad and told him not to talk to you anymore. Later, you wish you hadn't said that.

☐ a. I'd apologize, but I'd tell him not to laugh at me anymore.
☐ b. I wouldn't worry about it. If he was really my friend, he would know I didn't mean it.
☐ c. I would go talk to him and see if we could be friends again.
☐ d. I'd say, "I'm sorry for what I said. I was mad because you laughed at me."

- 10) A couple of your friends come over. You're about to go out with them when your mother starts yelling at you for not finishing your work before you go out. She keeps it up and makes a real big deal over it in front of your friends. You get embarrassed and angry.
- ☐ a. I'd tell my friends, "I'll call you later after I finish my work." Then I'd tell my mother she embarrassed me.
 - ☐ b. I'd say, "I'll do it later!" and then I'd leave with my friends.
 - ☐ c. I'd tell my friends that I can't go right now, but that I'd see them later.
 - ☐ d. I'd hurry and do what I had to do and then leave mad.
- 11) Your friend told you something and made you promise not to tell anyone else. The secret was who he wanted to go with to the school dance. Later you told somebody else and he found out about it. Your friend says, "Why did you tell who I wanted to go with to the dance?"
- ☐ a. I'd tell him I was sorry and that I only told one person.
 - ☐ b. I'd say, "Because I felt like it."
 - ☐ c. I'd say, "I'm sorry. I shouldn't have told anybody. It won't happen again."
 - ☐ d. I'd tell him it just slipped out.
- 12) While eating lunch with your friend, you said something as a joke but he got really mad. Later, when you asked him a question, he didn't answer. Then, he just walked away without saying anything to you.
- ☐ a. I'd let him go but later on, when he's not so mad, I'd tell him I was sorry.
 - ☐ b. I'd catch up with my friend and ask him what was wrong.
 - ☐ c. I wouldn't talk to him, but I wouldn't be mean either.
 - ☐ d. I'd say, "Okay, be that way. You can't even take a joke."
- 13) Sometimes your parents won't let you do something you want to do. You hate it when their only reason for saying "No" is that you're not old enough. Now, you just asked if you could do something and they said, "No. Maybe when you're older."
- ☐ a. I'd say, "Why do you always say that? Can't you see that I am old enough now!"
 - ☐ b. I'd get mad and yell really loud until they gave in.
 - ☐ c. If they said "No", there's not much I could say.
 - ☐ d. I'd say, "Okay, but how old do I have to be?"
- 14) You and a friend have know each other a long time. Now you're friend has changed. You two have nothing in common anymore. Even though you've been friends a long time, you really don't enjoy hanging around him now.
- ☐ a. I'd try to get to know him better. Maybe he's acting that way because I've changed too!
 - ☐ b. I'd try not to get around him that much.
 - ☐ c. I'd try to find something in common with him.
 - ☐ d. I'd tell him that we're not friends anymore because he has changed.

15) You and your parents can't agree on what time you should be in at night. You want them to listen to what you have to say. Before you have a chance, one of them says, "We don't want to hear it. You'll do what we say and that's it."

- ☐ a. I'd do what they said, but the next day I'd try to make them see my side of the story.
- ☐ b. I'd say, "I think I should be allowed to speak my mind and you could at least listen to my side of it."
- ☐ c. I'd get mad and go into my room. Then I'd stay out late that night.
- ☐ d. I'd agree with them because if I talk back I might not be able to go out at all.

16) Your sister found out that you talked back to one of your teachers and got in trouble at school. When you get home, you find out that your sister told your parents what happened.

- ☐ a. I'd be mad at my sister and I'd do something to get back at her.
- ☐ b. I'd tell my parents that what I said really wasn't that bad.
- ☐ c. I'd tell my parents, "I promise not to talk back to my teacher anymore."
- ☐ d. I would tell them what happened and admit that I was wrong.

17) You and your friends are talking about a certain teacher. You don't agree with what everyone else is saying. You think they're wrong.

- ☐ a. I'd say, "I know everybody has their own opinion, but I just don't agree with you."
- ☐ b. I would tell them they're wrong.
- ☐ c. I'd let them talk because everybody has a different opinion about people. I'd just know how I feel.
- ☐ d. I'd just act like I am agreeing with them, but I wouldn't really.

18) You have a lot of stuff to do—homework, a big test to study for, and chores at home. You hate having to take the whole day doing things you have to do. You wish you had time to do the things you like to do.

- ☐ a. I'd take some time to have fun and then stay up late doing my stuff.
- ☐ b. I'd study for the test, skip my homework, and hurry with my chores.
- ☐ c. I'd make a list of what I had to do and work on it one by one as fast as I can.
- ☐ d. I'd ask my mom if she could cut down on the chores. That way I'd have time to do what I like to do.

19) You're looking for your new radio. It was on your bed, but now it's gone. You look around the house and still can't find it. Just then your sister walks in with your radio and says, "I didn't think you'd mind if I borrowed it."

- ☐ a. I'd go into her room and take something of hers and see how she likes it.
- ☐ b. I'd tell her, "I don't mind if you borrow it. Just ask me first."
- ☐ c. I'd say, "Give me my radio." Then I'd tell her not to touch anything of mine without asking.
- ☐ d. I'd tell my mother what she did and tell her to punish my sister.

20) You sit next to this guy at lunch whose best friend is someone you can't stand. You enjoy talking to him, but often you don't because his friend shows up, too.

- ☐ a. I'd sit and talk to some of the other people around me. Then I would hurry up and finish eating, so I could get away from his friend.
- ☐ b. I would move and try to get my friend to move, too.
- ☐ c. I'd tell him I really don't like his best friend, but I wouldn't ask him to move. I'd try to get to know the guy, and maybe I'd like him.
- ☐ d. I would start talking to him anyway and not worry about his friend.

21) Your best friend's birthday was yesterday. When it was your birthday, he gave you a cassette tape you really liked. You want to give him a present but you don't have any money.

- ☐ a. I'd tell him I'm trying to decide what kind of present to give him.
- ☐ b. I would make my mother buy something for him.
- ☐ c. I'd try to make something for him or I'd do a favor for him like record his favorite song on a tape.
- ☐ d. I'd tell him "Happy Birthday" and explain to him that I don't have any money.

22) Your friends want to call people on the phone just to play a joke on them. They think it'll be fun, but you think it's dumb. You tell your friends you don't want to be a part of it. One of them gets mad and says, "What a baby! Don't you want to have any fun?"

- ☐ a. I would say, "I'm not a baby! You're the baby!"
- ☐ b. I'd say, "Calling people is no fun. All they do is hang up. Let's do something else."
- ☐ c. I'd say, "Not that kind of fun."
- ☐ d. I'd probably go along with them just to make them happy.

23) You want to go out with some friends. Your parents ask who you're going with. You tell them and they say you can't go. You ask why, and they tell you they don't like who you're going with.

- ☐ a. I wouldn't go, but I'd ask my friends to come over sometime so my parents could get to know them better.
- ☐ b. I'd ask them why they don't like my friends. Then I'd tell them a few things about my friends.
- ☐ c. I'd call my friends and tell them I can't go.
- ☐ d. I'd tell them that they can't pick my friends and that I am going.

24) You have a math test today. You studied for it and you're ready to take it. While you're taking the test your mind goes blank. You start to panic and can't remember a thing.

- ☐ a. I'd look on someone else's paper.
- ☐ b. I'd guess at the answers.
- ☐ c. I'd try to relax and answer the questions I know.
- ☐ d. I would try to think about nothing but math.

- 25) Your father had a bad day at work and comes home in a bad mood. You know he's in a bad mood so you try to stay out of his way. It works for a while, then suddenly he yells at you for leaving the bathroom light on. He says, "How many times do I have to tell you to turn off the light when you're finished?"
- ☐ a. I'd let him yell at me and get his anger out. But later on, I'd tell him how I feel.
 - ☐ b. I would say, "I'm sorry. I didn't do it on purpose."
 - ☐ c. I'd say, "Well, excuse me for making a little mistake."
 - ☐ d. I'd say, "Why do you always get mad at me when you have a bad day at work?"
- 26) You think your English teacher grades unfairly. Today, the teacher returns a paper you did. You worked a long time on this paper. The grade is a C-. You think you deserve a better grade.
- ☐ a. I'd find out why I got this grade. Then I'd take any help she could give me for the next one.
 - ☐ b. I wouldn't do anything. If I argued with her, she'd probably give me a lower grade.
 - ☐ c. I'd tell her that I worked hard and I think I deserve a better grade than a C-.
 - ☐ d. I'd say, "There's no way I deserve this bad of a grade."
- 27) Your science class is really hard. You read the book, but it doesn't make sense and you can't remember all the things you read. You know you're not understanding things because you got a bad grade on your last test.
- ☐ a. I'd start studying sooner and try really hard to make a better grade.
 - ☐ b. I'd try to get changed to an easier science class.
 - ☐ c. I'd give up on that class, but I'd try to pass the rest of them.
 - ☐ d. I'd ask the teacher to help me after school or tell me who could.
- 28) Your friend is coming by any minute to pick you up. Most of your clothes are dirty, and what you end up wearing doesn't look right. You look in the mirror and you know you don't look good. You get upset.
- ☐ a. I'd get mad and tell my mom I needed some new clothes.
 - ☐ b. I'd just wear the dirty clothes and tell my friends what happened.
 - ☐ c. I'd tell my friend to come in and help me find something to wear.
 - ☐ d. I'd call my friend and tell him that I just can't go.
- 29) You're saving your money for something really important. Your friends drop by and ask if you want to go to a movie. You want to go with them, but you really need to save your money.
- ☐ a. I would ask my parents for some money.
 - ☐ b. I'd tell them I need to save my money. Then I'd say, "Let's do something that doesn't cost anything."
 - ☐ c. I would probably go anyway.
 - ☐ d. I'd say, "I want to go, but I'm saving my money. Sorry."

- 30) You have to do book reports for your English class. You could have done better on the first one, but you ran out of time. You promised yourself that you'd start earlier on the next one, but here it is again – the night before it's due.
- ☐ a. I'd work hard on this report, but I'd also figure out a way to start earlier on the next one.
 - ☐ b. I wouldn't do it. It's too late to worry about it now.
 - ☐ c. I'd start working on it until I had a good, long one written.
 - ☐ d. I'd ask the teacher if I can turn it in a day late.
- 31) You were playing around in your house and broke a lamp. You want to tell your parents the truth about what happened, but you're afraid they'll get mad. If you don't tell them, they'll never know you did it, but you'll feel bad,
- ☐ a. I'd say that I did it, because people shouldn't tell lies.
 - ☐ b. I wouldn't say anything about it.
 - ☐ c. I'd tell them I didn't know who broke it.
 - ☐ d. I'd tell my parents the truth and offer to pay for it.
- 32) You're arguing with some people about something in the news. You disagree with what they're saying and you start getting angry. But later, you realize you may be wrong and they may be right.
- ☐ a. I'd just forget about it until it was brought up again.
 - ☐ b. Later on, I'd tell them that I was wrong and that I was sorry I got mad.
 - ☐ c. I wouldn't worry about it, but I'd try not to get mad the next time I disagree with somebody.
 - ☐ d. I wouldn't want them to know that I was wrong so I wouldn't talk about it.
- 33) You wonder what you're going to do when you're through with school. When people ask you what you plan to do, you say, "I don't know." You're not sure how you're going to make the decision, but you know it's time to decide.
- ☐ a. I'd figure out what I'm best at and decide from there.
 - ☐ b. I'd probably put it off, but in the back of my mind I'd still think about it.
 - ☐ c. I'd think about the things that I like to do most and pick one of them.
 - ☐ d. I'd talk to the school counselor and ask about different careers.
- 34) You want to go to an outdoor concert with some friends. Your parents ask you where you're going. You tell them and they say you can't go. You ask why, and they tell you they don't like you going to outdoor concerts.
- ☐ a. I'd get mad and beg them until they let me go.
 - ☐ b. I'd talk to my parents, find out why they don't like outdoor concerts, and then maybe come to some sort of agreement.
 - ☐ c. I'd tell them nothing's going to happen and it's about time they trusted me.
 - ☐ d. I'd tell them that I'm going anyway.

35) You're watching a good TV show. Your brother stands in front of the TV just to tease you. You tell him to leave, but he just stands there and laughs.

- ☐ a. I'd get up and push him out of the way.
- ☐ b. I'd say, "Thanks. That was a dumb show." He'd leave soon.
- ☐ c. I would tell my mom to please make him move.
- ☐ d. I'd say, "Get out of the way. You're acting like a little baby."

36) Your friend asked to borrow 75 cents and you said, "Okay." Later, you remember that you need the money for lunch.

- ☐ a. I wouldn't eat lunch because I couldn't ask him to give the money back.
- ☐ b. I'd tell my friend I needed the money back.
- ☐ c. I say, "Give me my money. I need it for lunch. Go ask somebody else if you need money."
- ☐ d. I'd ask my friend if he needed the money for something important. If he didn't, I'd ask for the money back.

37) Your history class is boring. You wish you didn't have to take the class. Because the class is so boring, you hate to do the homework or study for tests. Still, you don't want to make a bad grade in the class.

- ☐ a. I'd just do the best I can because I'll only have it for a year.
- ☐ b. I'd try things to make it more fun. If that didn't work, I'd just do my homework and pass the class.
- ☐ c. I probably wouldn't do the work. I still might luck up and pass.
- ☐ d. I'd try to pass with an easy grade. I wouldn't try my hardest at something I don't like.

38) Some of your friends are girls. You enjoy talking with them, and they seem to like you. You wish one of these girls would be your girlfriend, but none of them wants to be.

- ☐ a. I'd find a girlfriend somewhere else and just be friends with these other girls.
- ☐ b. I'd just try to be more friendly.
- ☐ c. I would drop all of them.
- ☐ d. I'd keep trying until I got one.

39) A friend of yours is always borrowing money from you. You are tired of loaning him money because he never pays you back. Now he's asking for more money. He says, "Can I borrow 50 cents? I'll pay you back."

- ☐ a. I'd tell him that he can borrow 50 cents but tomorrow I want all of my money back.
- ☐ b. I'd say, "No way!" and then tell him that if he doesn't want to get hurt, he better pay back what he owes me!
- ☐ c. I'd tell him I don't have any money to loan because he's borrowed it all.
- ☐ d. I'd tell him that I won't loan him any money until he pays me back.

40) A guy was just teasing you, but he called you a name that hurt your feelings.

- ☐ a. I wouldn't let it bother me.
- ☐ b. I would be hurt and I'd wonder why he did it.
- ☐ c. I'd tell him that he hurt my feelings and tell him not to call me that anymore.
- ☐ d. I'd get really mad and say something to hurt him.

41) You washed the car for your parents. You accidentally left one of the windows open and the inside got very wet. Before you have a chance to dry the inside, one of your parents comes out and says, "How could you leave the window down? Can't you do anything right?"

- ☐ a. When they finished yelling I'd say, "I'm sorry. It was my fault and I'll clean it up. It won't happen again."
- ☐ b. I wouldn't say anything, I would just dry it off.
- ☐ c. I'd tell them to do it themselves if they don't like it.
- ☐ d. I would say, "It was just an accident."

42) You were sick and missed a week of school. In your math class, you're really behind. You don't understand what the class is doing now. You don't know how to do the homework.

- ☐ a. I wouldn't do the homework. I'd tell my mom nobody would explain it to me.
- ☐ b. I'd ask the teacher to help me so I can learn what I missed.
- ☐ c. I'd call a friend and ask him what they did in math class.
- ☐ d. I'd ask my teacher to explain what I missed and give examples. Then I'd try to do some problems on my own.

43) Some afternoons you like getting out of the house and being by yourself. When you come home, your parents want to know what you've been doing. Today you come home from a bike ride and your mother says, "You left an hour ago. What have you been doing?"

- ☐ a. I'd tell her, "I was riding my bike. What did you think I was doing?"
- ☐ b. I'd say I was just out riding my bike because I wanted to be alone for awhile.
- ☐ c. I'd ignore her and go into my room. Then she would know it was none of her business.
- ☐ d. I'd say, "Nothing. Riding my bike."

44) You like to go slow with your classwork so you can be sure that it's right. Today, the teacher starts to pick up the work and you're not finished. Your teacher says, "I need your paper now."

- ☐ a. I'd get real mad and throw the paper on her desk.
- ☐ b. I'd say, "How can I do good work if you don't let me finish."
- ☐ c. I'd give her the paper and hope that I did okay.
- ☐ d. I'd ask for more time. If she says no, then I'd give her the paper and work faster next time.

- 45) You're watching a great TV show. You don't want to miss the end of it. Your mother says, "I'm washing clothes. Get all your dirty clothes and bring them to me now!"
- ☐ a. I'd say, "Can I wait till this is over? I'll put them in and turn the washing machine on."
 - ☐ b. I'd say, "Hold on."
 - ☐ c. I'd say, "Wait! This is the best part! I can't miss it."
 - ☐ d. I'd keep watching TV and maybe she would do it herself.
- 46) You and your brother use the same bathroom. Today, you left the bathroom neat, but he got water all over the floor. Your mother sees the water and blames you. She says, "Look at the mess you made. Get in there and mop it up."
- ☐ a. I wouldn't say anything. I would just mop the floor and get it over with.
 - ☐ b. I'd tell her that my brother made the mess and see what happens. If she starts to get mad, I'd clean it up.
 - ☐ c. I just wouldn't do it.
 - ☐ d. I'd say, "It's his mess, Make him mop it."
- 47) One of your classmates is always hanging around, asking questions, and following you. You really don't like this guy, but you don't want to be mean, either. Finally, you had enough and said, "Leave me alone!" Now you feel bad for saying that.
- ☐ a. I'd ignore him and pretend I don't see him.
 - ☐ b. I'd explain to him, "You've got to find other friends."
 - ☐ c. I'd tell him, "I'm sorry I hurt your feelings, but I don't like you following me around."
 - ☐ d. I'd say, "I'm sorry. I didn't mean it when I said leave me alone."
- 48) Today you got your report card. You're happy with your grades. When you show your grades to your parents, they say, "You can do a lot better than this. You may be satisfied with these grades, but we aren't."
- ☐ a. I'd say, "I'll try harder, but at least I'm passing."
 - ☐ b. I'd say, "That's the best I can do. If you don't like it, too bad."
 - ☐ c. I'd ask, "Which grades do you think I could bring up?"
 - ☐ d. I would say I can't do any better.
- 49) You sit next to this guy in class and find out that you two get along really well. You haven't talked to him outside of class because your friends may not like him. Your friends don't know this guy.
- ☐ a. I would be as friendly to him as to anybody else.
 - ☐ b. I wouldn't go outside of the class with this person.
 - ☐ c. If my friends don't like him, then they're not my real friends.
 - ☐ d. I'd introduce him to my friends and ask him to do something with us.

50) Even though you studied a long time for a test, you got a bad grade. After class your teacher asks if you studied. When you tell her how much you studied she says, "I don't know how you could have studied so much and still get such a bad grade."

- ☐ a. I'd say, "I thought I studied a lot, but I guess I didn't. I'll study harder next time."
- ☐ b. I'd keep telling her I studied until she believes me.
- ☐ c. I'd tell her I studied a lot and I don't know why I did so bad. Then I'd ask her to help me study better.
- ☐ d. I would say, "I don't care. Believe what you want."

Appendix V
Sociometric Rating Scale

Rate how much you like to spend time with each person below.

1	2	3	4	5
Don't really like to spend time with.				Like to spend time with a lot.

Names	Rating
Andrew Archer.....	_____
Belinda Blue.....	_____
Charles Crawley.....	_____
.	
.	
.	
.	
.	
Zachary Zest.....	_____

BIOGRAPHY OF THE AUTHOR

Rachel Grover was born in Rochester, New York on November 15, 1971. She was raised in Syracuse, New York and graduated from Nottingham High School in 1989. She attended Cornell University and graduated in 1993 with a Bachelor's degree in Human Development and Family Studies. She entered the Psychology graduate program at the University of Maine in the fall of 1996. Rachel is a candidate for the Doctor of Philosophy degree in Psychology from The University of Maine in August, 2002.