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# Exploring Early Adolescents' Adjustment across the Middle School Transition: The Role of Peer Experiences and Social-cognitive Factors

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EXPLORING EARLY ADOLESCENTS' ADJUSTMENT ACROSS THE MIDDLE  
SCHOOL TRANSITION: THE ROLE OF PEER EXPERIENCES  
AND SOCIAL-COGNITIVE FACTORS

By

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B.A. University of Richmond, 1997

A THESIS

Submitted in Partial Fulfillment of the  
Requirements for the Degree of  
Doctor of Philosophy  
(in Psychology)

The Graduate School

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August, 2003

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Thesis Advisor: Dr. Cynthia A. Erdley

An Abstract of the Thesis Presented  
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The primary purpose of this study was to consider the role of early adolescents' peer experiences (i.e., peer acceptance, number of mutual friends, friendship quality) in predicting their adjustment across the transition from elementary to middle school, and to examine whether students' goals and attributions added to the prediction of adjustment, above and beyond the peer variables. The second goal was to include a comprehensive assessment of participants' adjustment (i.e., loneliness, depression, self-esteem, school involvement, academic achievement, school avoidance) and to investigate changes in the adjustment variables across the transition to middle school. Finally, this study examined potential gender differences in adjustment during this transition.

Participants were 365 early adolescents (175 boys, 190 girls) who completed both the Time 1 (spring of fifth grade) and Time 2 (fall of sixth grade) assessments. Peer acceptance was assessed using a sociometric rating scale and number of mutual friendships was evaluated through an unlimited positive nomination procedure.

Participants also completed measures that assessed friendship quality, feelings of loneliness and depression, self-esteem, extent of involvement in school, and attributions and goals in socially challenging situations. Information regarding participants' academic achievement and absences from school was obtained from student files.

Results indicated that peer acceptance, number of friendships, and friendship quality are somewhat related dimensions of early adolescents' peer experience that make unique contributions to psychological and school adjustment, both concurrently and across the transition. Interestingly, of all the adjustment variables, the prediction of academic achievement was the most robust. The social goal variables added significantly to the prediction of several of the adjustment variables, above and beyond the peer variables. Generally, peer acceptance was a stronger predictor of psychological adjustment for boys, whereas aspects of friendship were more important for girls' psychological adjustment. For both boys and girls, peer acceptance significantly predicted the school adjustment variables. In examining change across the transition, academic achievement and early adolescents' endorsement of learning goals declined significantly. Results of this study point to the importance of including a peer component in intervention programs designed to improve early adolescents' adjustment during the transition to middle school.

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## CHAPTER 1: INTRODUCTION

### *Overview*

Adolescence, which is generally referred to as the second decade of the life span, is a developmental period that is characterized by numerous biological, cognitive, and social transitions (Hill, 1980; Hill & Mönks, 1977; Steinberg, 2002). In addition to coping with these fundamental changes, the early adolescent must typically navigate the contextual changes associated with the transition to the middle school environment. In many cases, adolescents move from a small elementary school with self-contained classrooms and close relationships with teachers to a larger, more impersonal middle school environment (Simmons & Blyth, 1987). Overall, research indicates that the transition from the elementary to middle school environment coincides with declines in early adolescents' academic achievement, self-esteem, interest in school, and level of motivation (Alspaugh, 1998; Eccles, Lord, & Buchanan, 1996; Fenzel, 2000; McDougall & Hymel, 1998; Simmons & Blyth, 1987). Studies have also reported that adolescents experience increases in psychological distress across this transition (Chung, Elias, & Schneider, 1996; Hirsch & Rapkin, 1987).

Given these findings, researchers have sought to identify factors that influence early adolescents' adjustment across the middle school transition. Some studies have focused on the impact of the timing and number of secondary school transitions on adolescents' adjustment (Crockett, Petersen, Graber, Schulenberg, & Ebata, 1989; Felner, Primavera, & Cauce, 1981; Simmons & Blyth, 1987). Other research has examined how changes in adolescents' achievement goals relate to declines in their academic performance (Anderman & Midgley, 1997). Recently, investigators have begun to

consider adolescents' own perceptions of the stressfulness of their transition to middle school (Berndt & Mekos, 1995; McDougall & Hymel, 1998). A small number of studies have examined the relationship between adolescents' perceptions of support from adults and peers and the nature of their transition experience (Fenzel, 2000; Hirsch & DuBois, 1992). Given the rising importance of relationships with peers during adolescence, it is quite remarkable that researchers have largely overlooked the role of peers across the middle school transition.

Overall, there is substantial evidence linking poor peer relations to adjustment difficulties such as aggressive behavior, feelings of loneliness, poor academic achievement, school dropout, involvement in criminal activity, and mental health problems (Bagwell, Newcomb, & Bukowski, 1998; Coie, Dodge, & Kupersmidt, 1990; Parker & Asher, 1987). In recent years, researchers have made distinctions between the various *types* of relationships that are encompassed by the broad concept of "peer relations." Popularity (i.e., a particular child's level of acceptance by the members of his or her peer group), friendship (i.e., involvement in a mutual, dyadic relationship), and friendship quality (i.e., the extent to which a friendship affords certain provisions such as validation and companionship) are conceptually distinct, yet related constructs that make unique contributions to children's adjustment. According to Bukowski and Hoza (1989), it is crucial to assess each of these aspects of children's peer experience.

The impact of these peer variables on adjustment has been examined across *early* school transitions. This research indicates that children's experiences with peers (i.e., the presence of a familiar peer, level of peer acceptance, friendship, friendship quality) play an important role in a successful negotiation of the transition from preschool to



kindergarten (Ladd, Kochenderfer, & Coleman, 1996; Ladd & Price, 1987). Research using middle or junior high school aged samples indicates that peers have a substantial influence on adolescents' academic achievement and attitudes toward school (Berndt & Keefe, 1995; Wentzel & Caldwell, 1997). However, this research has been conducted either during the course of one junior high/middle school year or across several years after students have already entered middle school. Ladd's research with kindergarten samples demonstrates that it is crucial to examine the role of peer experiences during normative school transitions. To this point, however, researchers have rarely considered the influence of peers across the transition from elementary to middle school. The current study addressed this limitation by examining the influence of early adolescents' peer experiences (i.e., peer acceptance, friendship, friendship quality) across the middle school transition.

In addition to these peer variables, recent research points to the importance of evaluating the cognitive processes underlying children's social behavior, particularly within the context of challenging social situations (see Dodge & Feldman, 1990, for a review). Therefore, the present study also assessed several key social-cognitive variables, including children's causal attributions and goals in response to social failure situations. Although previous research has examined children's academic goals and how children's social goals in the classroom setting relate to their academic adjustment, very few studies have investigated how children's attributions and goals regarding social situations relate to their social (i.e., peer acceptance, number of friends, friendship quality) and psychological adjustment. It may be possible to gain a more complete

understanding of children's peer experiences across the transition to middle school by examining the social-cognitive processes underlying their behavior in social situations.

In summary, the primary purpose of the present study was to simultaneously consider the role of children's peer acceptance, involvement in friendships, friendship quality, and goals and attributions surrounding social situations in predicting children's adjustment across the transition from elementary to middle school. Before describing this study, several areas of research are reviewed. First, the developmental psychopathology perspective is presented to provide a theoretical rationale for examining normative transitions. The second section provides an overview of the fundamental developmental changes that occur during early adolescence. Next, the third section discusses the research on changes in the middle school environment. The fourth section consists of a comprehensive review of research that has examined the middle school transition. Then, a theoretical basis for the study of children's friendship experiences is presented, followed by a review of the literature on the significance of peer relations during childhood and adolescence. The final section of the introduction contains a theoretical rationale for examining social-cognitive processes and a review of the research on children's attributions and goals for social situations, followed by a description of the details of the current study.

### *The Developmental Psychopathology Perspective*

The emerging field of developmental psychopathology provides a theoretical rationale for examining the normative transition to middle school. Sroufe and Rutter (1984) define developmental psychopathology as "the study of the origins and course of individual patterns of behavioral maladaptation, whatever the age of onset, whatever the

causes, whatever the transformations in behavioral manifestation, and however complex the course of the developmental pattern may be” (p. 18). The central goal of this discipline is to identify developmental pathways or trajectories that lead to outcomes that are either pathological or nonpathological in nature (Sroufe, 1990). To clarify these pathways, longitudinal research that follows individuals from infancy through adulthood is necessary. In addition, the developmental psychopathology perspective emphasizes the need for research focusing on how individuals adapt to essential developmental tasks, such as normative developmental transitions (Masten & Braswell, 1991). The following paragraphs will outline key elements of the developmental psychopathology perspective and discuss how they relate to the present study.

From the developmental psychopathology perspective, it is crucial to consider the role of development in the symptoms and course of psychopathology and in the classification and treatment of childhood disorders (Masten & Braswell, 1991). For instance, symptoms of a disorder may manifest themselves differently at various stages of development. It is also crucial to study both normal and abnormal development simultaneously given that the study of one can enhance our understanding of the other (Cicchetti, 1993; Sroufe, 1990). Although this study concentrated on normative development, participants manifested a range of peer, psychological, and academic adjustment.

Another guiding tenet of developmental psychopathology is that adaptational failures are defined with respect to normative patterns of development (Masten & Braswell, 1991; Sroufe, 1990). At each stage of development, an individual faces critical tasks or issues. Many symptoms of psychopathology are a reflection of a failure to adapt

to the expectations associated with a particular developmental challenge (Sroufe & Rutter, 1984). Masten and Braswell outline several tasks that are encountered during middle childhood and adolescence. Developmental tasks of middle childhood include school adjustment (e.g., attendance, appropriate behavior), academic achievement, friendships with peers, and peer acceptance. As individuals enter adolescence, they are confronted with pubertal changes, the transition to secondary school, heterosexual friendships, dating, and establishing their own identity. This study examined early adolescents' adaptation with respect to several of these salient developmental tasks.

Developmental psychopathologists describe development in terms of pathways or trajectories. In general, development is viewed as a continuous process that involves gradual, qualitative changes in children's behavioral, cognitive, and affective systems. More specifically, development is characterized by a continual reorganization of both old and new skills as individuals adapt to new environments (Sroufe & Rutter, 1984). Overall, the course of development is considered to be lawful. That is, each individual's developmental course or pathway follows a general, coherent pattern of adaptation (Sroufe & Rutter, 1984). Cicchetti (1993) emphasizes the importance of identifying factors that redirect an individual from a deviant pathway to a more adaptive one. Similarly, Sroufe and Rutter point to the importance of understanding why some individuals with patterns normally predictive of disorder do not develop psychopathology. By examining the characteristics of early adolescents who adjust positively across the middle school transition, it may be possible to identify protective factors (e.g., involvement in a mutual friendship) that could assist individuals who are on

a maladaptive trajectory (e.g., individuals with low academic achievement and/or low levels of acceptance within the peer group).

The developmental psychopathology perspective has implications for the assessment of children and adolescents. Cicchetti and Garmezy (1993) recommend that researchers examine functioning across various domains of development with methods of assessment that have appropriate age and gender norms. For example, a child could be academically successful, but evidence poor social adjustment. Consistent with this recommendation, the present study assessed early adolescents' social, psychological, and academic functioning with appropriately normed measures.

Within the field of developmental psychopathology, increasing emphasis is being placed on the study of developmental transitions (Rutter, 1989). As Masten and Braswell (1991) explain, "periods of transition offer a window through which to view developmental processes and also an opportunity to guide individuals toward one set of paths rather than another, with long term consequences" (p. 41). Empirical research has demonstrated that the transition to adolescence is associated with substantial increases in a wide range of behavior problems and psychopathology (e.g., delinquency, drug and alcohol use, anxiety, depression, suicidal behavior). Therefore, it is important to examine this period of development more closely (Masten & Braswell, 1991). This study focused on a developmental stage that involves transitions both in terms of maturation (i.e., puberty) and experience (i.e., the transition to middle school).

#### *Adolescence as a Time of Transition*

Adolescence, which is generally referred to as the second decade of the life span, is a developmental period that is characterized by numerous transitions. As individuals

encounter these significant changes, they gradually progress from the immaturity of childhood to the maturity of adulthood. Given that the term *adolescence* encompasses such a broad time span, developmental researchers often divide this period of development into the phases of early adolescence (from approximately age 11 through age 14), middle adolescence (from approximately age 15 through 18), and late adolescence (from approximately age 18 to 21) (Arnett, 2000; Kagan & Coles, 1972). As many researchers have highlighted, it is extremely important to focus on the changes that occur during each of these phases of adolescent development (Steinberg & Morris, 2001). In keeping with this recommendation, the present study focuses on a specific developmental task of *early adolescence*, that is, the transition to middle school.

To better understand the myriad of changes that occur during adolescence, it is beneficial to view adolescent development in terms of an organizational framework or model. One such model, presented by John Hill and Franz Mönks (1977), has been utilized by numerous researchers who endeavor to gain a greater understanding of adolescent development. Specifically, this heuristic model organizes the period of adolescence into the following three sets of primary changes: biological changes, changes in cognitive abilities, and transitions in social roles and relationships (Hill, 1980; Hill & Mönks, 1977). Each of these primary changes will be discussed in the following paragraphs, with a specific focus on the early adolescent phase of development.

### *Biological Transitions*

The series of biological or physical changes associated with maturation into adult reproductive capability are referred to as puberty. The five principal manifestations of puberty include a rapid growth resulting in increases in height and weight, the

development of primary sex characteristics (e.g., development of the testes in males and the ovaries in females), the development of secondary sex characteristics (e.g., changes in genitals and breasts; the growth of pubic, facial, and body hair), changes in the quantity and distribution of fat and muscle, and changes in the circulatory and respiratory systems that lead to increased stamina for physical activities such as exercise (Graber, Petersen, & Brooks-Gunn, 1996). Other significant pubertal events include the onset of menstruation for girls and the deepening of the voice and the occurrence of the first ejaculation for boys. According to Steinberg, the process of puberty begins between ages 7 and 13 in girls and between ages 9 ½ and 13 ½ in boys. For girls, the entire maturation process can be as brief as a year and a half and as lengthy as six years. For boys, the length of the pubertal maturation process ranges from approximately two to five years.

A considerable amount of research has focused on the impact of early versus late maturation in both boys and girls. Overall, late maturing boys and early maturing girls face an increased risk of developing peer relationship difficulties and psychological problems. More specifically, late maturing boys are less popular within the peer group and tend to have more negative self-concepts than early maturing boys (Mussen & Jones, 1957; Petersen, 1985). Early-maturing girls are more likely than on-time or late-maturing girls to encounter emotional difficulties such as depression, anxiety, low self-esteem, and eating disorders (Ge, Conger, & Elder, 1996; Graber, Petersen, & Brooks-Gunn, 1996). Given that the timing of puberty (i.e., the age at which puberty begins) and tempo of puberty (i.e., the rate at which individuals mature) both vary considerably (Hill & Mönks, 1977), one would expect large individual differences in terms of the extent to which the early adolescents in the current study had encountered these biological transitions.

However, it is likely that the early adolescent participants were experiencing, beginning to experience, or at least anticipating the dramatic physical changes associated with puberty over the course of this short-term longitudinal investigation.

### *Cognitive Transitions*

In addition to physical changes, adolescents experience substantial advances in their cognitive abilities (Keating, 1990). Whereas children's thinking focuses on concrete, observable events, adolescents develop the ability to think abstractly. For instance, adolescents can engage in hypothetical-deductive reasoning. That is, they are able to develop hypotheses and then systematically deduce, or conclude, which is the best strategy to use to solve a particular problem. Adolescents also experience improvements in their metacognitive skills. More specifically, adolescents are able to employ strategies to assist them in remembering information and to explain to others the cognitive strategies that they are utilizing. This increased ability to monitor one's own thoughts and feelings can lead to adolescent egocentrism, or an intense preoccupation with the self (Elkind, 1967). Two types of egocentrism that adolescents display are referred to as the personal fable and the imaginary audience (Steinberg, 2002). Personal fables are adolescents' beliefs that their own experiences are unique. These personal fables can cause adolescents to engage in risky behaviors because they feel invincible or adopt the belief that certain negative events that happen to others could not possibly happen to them (Elkind, 1967). The imaginary audience refers to adolescents' belief that they are "on stage" or their behaviors are the focus of everyone else's concern and attention.

Adolescents also experience gains in their information processing abilities, such as advances in both selective and divided attention, increases in working and long-term



memory, and an increase in the speed of information processing (Keating, 1990).

Contrary to Piaget's proposition that adolescents develop the ability to think abstractly and hypothetically in an abrupt, stage-like fashion, the cognitive changes of adolescence emerge in a gradual manner. Overall, research indicates that early adolescents go through a period of "emergent formal operations," during which they utilize more advanced reasoning skills in some situations, but not in others (Kuhn, Langer, Kohlberg, & Haan, 1977; Markovits, Venet, Janveau-Brennan, Malfait, Pion, & Vadeboncoeur, 1996). Most likely, the early adolescents in the present study were just beginning to experience the cognitive changes described above.

### *Social Transitions*

With respect to the third component of the model presented by Hill and Mönks (1977), adolescents experience significant changes in their social relationships with individuals such as parents and peers. Contrary to the common stereotypes of storm and stress in adolescents' family relationships, the majority of adolescents report having respect for their parents as individuals, feeling close to their parents, and feeling loved and supported by them (Steinberg, 1990). However, adolescence does represent a period of change in relationships and daily interactions with family members. For example, adolescents and their parents tend to engage in frequent disagreements over day-to-day issues such as household chores and clothing (Montemayor, 1983). In their quest for greater autonomy, adolescents generally become more assertive in expressing their opinions and negotiating during discussions with their parents. In most families, adolescence signifies a movement away from asymmetrical patterns of interaction between parents and children to interactions in which adolescents and parents function on

a more equal level (Steinberg, 1990). Given that early adolescence is the period when this change in parent-child interactions first occurs, researchers have suggested that this phase of development may be a particularly stressful time for the entire family (Laursen & Collins, 1994; Steinberg, 2001).

Adolescents also encounter transitions in their social relationships with peers. As individuals approach adolescence they spend significantly more time with peers (Larson & Verma, 1999). Overall, adolescents' experiences within the peer group provide opportunities for identity exploration, the development of autonomy, and the socialization of appropriate sexual behavior (Steinberg, 2002). Friends also have a substantial influence on adolescents' attitudes toward school, school behavior, and academic achievement (Berndt & Keefe, 1995). In contrast to childhood friendships, higher levels of intimacy characterize adolescents' friendships (Berndt, 1992). In addition, research indicates that girls' friendships tend to be more intimate than boys' friendships (Berndt, 1992). Another significant transition in peer relationships is that adolescents spend increasingly more time with opposite-sex peers (Brown, 1990). As will be further discussed in a later section, peer group and friendship relations play an extremely important role in the psychological development of early, middle, and late adolescents.

As the preceding discussion illustrates, adolescence is a developmental period that is characterized by multiple biological, cognitive, and social changes. In many cases, the early adolescent must not only cope with these fundamental transitions of adolescence, but also navigate the contextual changes associated with the transition to the middle school environment.

### *The Middle School Context*

Upon entering middle school, the early adolescent is faced with various institutional changes. In many cases, adolescents move from a small elementary school with self-contained classrooms and close relationships with teachers to a larger, more impersonal middle school environment (Simmons & Blyth, 1987). In addition, adolescents making the transition to middle school shift from being the oldest to the youngest age students within the school social system (Entwisle, 1990). Notably, many researchers have found that the transition from the elementary to middle school environment coincides with declines in early adolescents' academic achievement, self-esteem, interest in school, and level of motivation (Eccles et al., 1996). Furthermore, students making the transition to middle school perceive that their teachers care less about them and are less friendly than elementary school teachers (Entwisle, 1990). This section will offer a more detailed discussion of the changes that occur in both the school and classroom structure across the middle school transition, and the impact that these changes have on early adolescents who are making this shift.

### *Stage-Environment Fit Theory*

Several different explanations have been offered as to why the transition to middle school has a negative impact on early adolescents. One theory that has received considerable empirical support is the stage-environment fit theory, which was first proposed by Eccles and Midgley (1989). According to this theory, "...behavior, motivation, and mental health are influenced by the fit between the characteristics individuals bring to their social environments and the characteristics of these social environments" (Eccles et al., 1996, p. 254). As such, individuals are likely to experience

adjustment difficulties when a particular environment does not meet their psychological needs. More specifically, Eccles and Midgley hypothesized that the social environments of most junior high and middle schools do not match the psychological needs of adolescents. Due to this mismatch between adolescent needs and characteristics of the school environment, adolescents display declines in motivation, interest, academic achievement, and behavior as they enter these new school contexts.

### *Changes in the School Environment*

Consistent with the stage-environment fit theory, researchers have identified links between changes in the school environment from elementary to middle school and the subsequent adjustment difficulties that transitioning adolescents experience. Eccles et al. (1996) conceptualized these changes as occurring at both the macro (school) and micro (classroom) level. According to Simmons and Blyth (1987), changes that occur at the macro level include increased school size, increased bureaucratic organization and departmentalization, and decreased contact between teachers and individual students. These researchers suggest that early adolescents are at a developmental stage that is characterized by experimenting with various types of behaviors and identities. At this stage, adolescents require close supervision of caring adults. Simmons and Blyth assert that the large, impersonal structure of junior high and middle schools cannot meet adolescents' needs at this developmental stage. The disruption of one's peer group is another macro level change that could have a negative impact on the early adolescent, particularly since this is a developmental period when relationships with peers become increasingly important (Higgins & Parsons, 1983).

*Changes in the Classroom Environment*

Eccles et al. (1996) outline several changes that occur within the classroom environment. For each change, these researchers explain how there is a mismatch between the classroom characteristic and the needs of the developing adolescent. First, in comparison to elementary school classrooms, there is a greater emphasis on discipline and teacher control in middle school classrooms. Furthermore, in middle school classrooms, students are afforded less freedom and fewer decision-making opportunities (Eccles, Lord, & Midgley, 1991). Eccles et al. (1996) emphasize that this environment does not fit the developmental needs of the early adolescent, who is striving for greater autonomy and responsibility. Second, research demonstrates that teacher-student relationships are more impersonal and less positive in middle school classrooms than in elementary school classrooms (Eccles & Midgley, 1989). In one study, students rated their junior high school teachers as less friendly, supportive, and caring in comparison to the teachers that they had in their last year of elementary school (Feldlaufer, Midgley, & Eccles, 1988). In addition, the junior high school teachers reported lower levels of trust in their students than did the students' sixth grade (elementary school) teachers (Feldlaufer et al., 1988). Eccles et al. (1993) report that, in general, teachers hold negative stereotypes of adolescents that cause them to distrust their students and withdraw emotionally from them. According to Eccles et al. (1996), these impersonal relationships between teachers and students make it less likely that teachers will be able to identify students who are experiencing adjustment difficulties. In addition, at a time in development when the adolescent is exploring his or her own identity and could benefit from questioning parental values with a respected adult such as a teacher, impersonal

student-teacher relationships make it more likely that adolescents will turn to peers rather than their teachers during this identity exploration process (Eccles et al., 1996).

Third, the transition to middle school is also associated the beginning of ability grouping or tracking (Steinberg, 2002). On a positive note, tracking allows teachers to implement lessons that are more specifically directed to students' abilities. However, critics of tracking emphasize that tracking causes adolescents to become more concerned about evaluation and leads to increases in social comparison (Eccles et al., 1996). In addition, students who are placed in low ability groups experience decreases in their self-esteem (Steinberg, 2002). Finally, research demonstrates that middle school and junior high school teachers use stricter grading standards than elementary school teachers. For example, Simmons and Blyth (1987) compared a group of adolescents who made a transition between sixth and seventh grade to a group of adolescents who attended a kindergarten through eighth grade school. Interestingly, the transitioning adolescents experienced a significant decrease in their grades in comparison to the adolescents who did not make a transition. Notably, there was not a corresponding decrease in the transitioning students' standardized achievement test scores. Simmons and Blyth (1987) suggest that these results are a reflection of the stricter grading practices that students encounter upon entering middle school. Given the heightened self-consciousness that early adolescents experience, a decrease in academic achievement could negatively affect an adolescent's self-esteem and motivation to achieve in school.

In addition to the contextual changes mentioned above, there is evidence that classwork during the first year of junior high requires lower level cognitive skills than does classwork at the elementary level (Eccles et al., 1996). This change is inconsistent

with the developmental increases in abstract cognitive abilities that adolescents experience. Particularly at the beginning of middle school, transitioning students also face novel issues such as opening a locker with a combination lock, changing for gym class, using hall passes, and adjusting to a schedule that does not include recess, which can be stressful experiences for these students.

### *Summary and Implications*

As the preceding paragraphs have illustrated, in addition to the biological, cognitive, and social changes that early adolescents experience, the adolescent faces many contextual changes when making the transition to middle school. Overall, the changes that young adolescents face upon entering the middle school environment are inconsistent with their developmental characteristics (e.g., a need for autonomy, close relationships with peers, heightened self-consciousness, increases in cognitive ability, and issues related to identity development) (Eccles et al., 1996). It is important to note, however, that the extent of the mismatch between school context and adolescent characteristics varies depending on the characteristics of a particular middle school. Many school administrators have begun to implement student and parent orientation programs and to make changes in the middle school curriculum and teachers' instructional methods in order to facilitate continuity from elementary to middle school and to meet adolescents' developmental needs (Mizelle & Mullins, 1997). To properly guide the development of such intervention programs, much more research on the middle school transition is needed. Although researchers have considered many of the contextual and teacher-student relationship variables that change across the transition,

peer relationship variables have been largely overlooked. The present study addressed this limitation by considering the role of peers across this transition.

### *Review of Middle School Transition Studies*

Although researchers have rarely considered the influence of adolescents' peer experiences across the middle school transition, other factors that play a role in adolescents' transition experience have been examined. Several studies have focused on the impact of the timing and number of school transitions on adolescents' adjustment. Other studies have concentrated on changes in adolescents' psychological symptomatology and self-esteem across the transition to middle school. In recent years, researchers have begun to consider factors such as adolescents' coping strategies, attitudes toward school, and perceptions of the stressfulness of the transition experience. A small number of studies have examined the impact of social support from parents and peers on adolescents' adjustment to middle school. Research has also identified how changes in adolescents' achievement goals from elementary to middle school relate to decreases in perceived academic competence and academic achievement in middle school. As a comprehensive review of these studies will demonstrate, this area of research is in its infancy. Much more research is needed in order to reconcile conflicting results and to identify the role of additional factors, such as interpersonal variables, across the transition experience.

### *School Structure*

A number of studies have examined the role of the timing and number of school transitions on adolescents' adjustment. In a comprehensive longitudinal study of secondary school transitions, Simmons and Blyth (1987) followed sixth through eighth



grade students for five years. Some of the students were in an 8-4 arrangement (i.e., consisting of a kindergarten through eighth grade elementary school and a ninth through twelfth grade high school) and had to change schools only one time, whereas other students were in a 6-3-3 school structure (consisting of an elementary school, junior high, and high school) that involved two school transitions. These researchers examined changes in adolescents' self-esteem, participation in extracurricular activities, academic achievement, and feelings of anonymity as the students progressed through each of the two school structures. In comparison to the 6-3-3 arrangement, the 8-4 school structure appeared to have a less detrimental impact on adolescents' adjustment, however, the pattern of results varied somewhat by gender. For instance, boys' self-esteem gradually increased from sixth to tenth grade, regardless of the type of school arrangement that they experienced. For girls, self-esteem increased steadily throughout the five-year period for participants in the 8-4 arrangement, but girls in the 6-3-3 arrangement evidenced drastic declines in self-esteem following each school transition. Interestingly, both boys and girls in the 8-4 arrangement participated in significantly more extracurricular activities than students in the 6-3-3 organization. Notably, adolescents' academic achievement and feelings of anonymity did not vary by school structure or by gender. Specifically, students' grades declined and feelings of anonymity increased following any school transition, regardless of when it occurred. Several other studies (Alspaugh, 1998; Crockett et al., 1989; Felner et al., 1981; Simmons, Burgeson, Carlton-Ford, & Blyth, 1987) that have considered the impact of the timing and number of school transitions on adolescents' adjustment have found results similar to those described above.

Simmons and Blyth (1987) conclude that all school transitions, regardless of timing, can have a negative impact on adolescents' psychological well-being and social participation. However, school transitions seem to be more detrimental when they occur *earlier* in development. Simmons and Blyth hypothesize that early school transitions coincide with the significant pubertal changes that adolescents face. As such, adolescents encounter multiple changes when they experience an early school transition. Early school transitions may be particularly stressful for girls, given that such transitions often coincide with the onset of puberty and the beginning of dating. In support of this hypothesis, one study found that girls experience a significant decline in their self-image when faced with early and repeated school transitions whereas boys' self-image either increases or remains the same (Crockett et al., 1989). Notably, however, several studies have failed to find gender differences in adjustment across the middle school transition. More research is needed to clarify the relationship between gender and adjustment across this transition.

### *Psychological Distress*

In addition to the studies investigating the role of timing and number of school transitions, a small number of studies have examined changes in adolescents' psychological symptomatology across the transition to middle or junior high school. Hirsch and Rapkin (1987) administered several self-report measures, including the Brief Symptom Inventory, to 159 students making the transition to junior high school. Students were assessed at the end of sixth grade, the middle of seventh grade, and the end of seventh grade. Results indicated that somatic symptoms increased across the transition to junior high school for both boys and girls. In addition, girls experienced significant

increases in symptoms of depression, obsessive-compulsiveness, and hostility. In contrast, boys reported decreases in each of these symptom domains. Similarly, Chung et al. (1996) used a 19-item measure that was derived from the Health and Daily Living-Youth Form to assess adolescents' mood and physical symptoms usually associated with stress. A total of 120 students completed assessments at the end of fifth grade in elementary school and at the end of sixth grade in middle school. In general, girls reported significantly higher levels of general psychological distress than boys across this transition. Based on these two studies, it appears that the transition to middle school is associated with an increase in psychological distress, particularly for girls. However, further research is required, given the small number of studies on this topic.

### *Self-Esteem*

A relatively larger number of studies have investigated the extent to which self-esteem changes across the transition to middle school. However, research in this area has produced conflicting results, with some studies reporting declines in self-esteem across the transition and others reporting that adolescents' self-esteem increases or remains the same. Proctor and Choi (1994) assessed students' general self-worth and their competence in the cognitive, social, and physical domains. The self-report questionnaires were administered in the spring of the students' sixth-grade year and during the fall of seventh grade, approximately two months after students made the transition to junior high school. Results indicated that general self-esteem and perceived competence in the cognitive, social, and physical domains either remained stable or increased from sixth to seventh grade. Proctor and Choi concluded that early adolescents' self-esteem and perceived competence are not negatively affected by the transition to junior high school.

Similarly, Hirsch and Rapkin (1987) found that self-esteem did not change from sixth to seventh grade (across the transition to junior high), and it increased from the middle to end of seventh grade.

In contrast to the studies cited above, other researchers have reported declines in adolescents' self-esteem across the transition to middle and junior high school. One study examined changes in 1,850 early adolescents' global self-esteem and self-perceptions of ability in the domains of math, English, social activities, and sports across the transition to junior high school (Wigfield, Eccles, Mac Iver, Rueman, & Midgley, 1991). Participants completed questionnaires at two assessment phases (fall and spring) in both sixth and seventh grade. Results indicated that the participants' self-esteem decreased from the spring of sixth grade to the fall of seventh grade. However, self-esteem scores increased over the course of the seventh grade year. Notably, boys reported higher self-esteem than did girls at all four assessment periods. Contrary to results presented by Simmons and Blyth (1987), changes in self-esteem across the transition did not differ by gender. In addition to global self-esteem, participants' self-concepts of ability in math, English, social activities, and sports declined after the transition. Wigfield et al. (1991) attribute these declines to changes in the school and classroom environments that students face when they enter junior high school. Consistent with these results, Fenzel (2000) reported that, as a result of increased school-related "role strains" such as work demands and changes in relationships with teachers and peers, adolescents' experience decreases in feelings of self-worth across the transition to middle school.

### *Coping Strategies*

One study has considered the role of adolescents' coping strategies across this transition. In this unique study, Causey and Dubow (1993) assessed various approach and avoidant coping strategies (e.g., seeking social support, problem solving, distancing) used by adolescents in response to a specific stressful aspect of the transition, perceived controllability over the stressor, perceived quality of school life, perceptions of the severity and frequency of 25 daily stressors related to making the transition (e.g., having trouble making friends, getting too much homework, not getting along with all your different teachers), and perceived effectiveness in coping with their most problematic stressor. Participants completed the self-report questionnaires three weeks into their seventh grade year (first year of junior high) and again three months later. Results indicated that higher levels of approach coping and lower levels of avoidance coping, and positive perceptions of the school environment predicted positive adjustment to junior high school (i.e., more effective coping with the specific stressor). Interestingly, in terms of identifying the stressor that was most problematic since the beginning of junior high school, 40% of the students chose a conflict with an authority stressor (e.g., having an argument with a teacher), 23% chose a peer stressor (e.g., missing friends from elementary school), 21% chose a new/larger environment stressor (e.g., leaving the wrong books/supplies in your locker and forgetting to bring them to class), and 17% chose an academic pressure stressor (e.g., getting too much homework). As mentioned in the middle school context section, several of the teacher, academic, and new/larger environment stressors have been examined. However, a closer examination of the role of adolescents' peer experiences across the transition is needed.

### *Attitudes Toward School and Social Support*

A few studies have considered adolescents' attitudes toward school and their perception of the quality of school life across the middle or junior high school transition. In the Hirsh and Rapkin (1987) study, participants reported dramatic declines in their perceptions of the quality of school life, regardless of their level of academic competence (as measured by a standardized achievement test score) from the end of sixth through the end of seventh grade. In another study, 160 participants completed a variety of self-report measures in the spring of sixth grade and the fall of seventh grade (McDougall & Hymel, 1998). These measures assessed participants' perceptions of the stressfulness of the school transition, attitudes toward school, involvement in school, perceptions of teacher support, disruptive behavior, self-concept, loneliness, perceptions of peer support, perceptions of anonymity, and academic achievement. Results suggested that students who reported poor school attitudes and behavior and social adjustment problems were significantly more likely to report undergoing a stressful transition experience. Overall, the majority of the seventh grade students in this study reported feeling successful and happy after one month of middle school. McDougall and Hymel emphasize that this finding may be a function of the fact that the middle school was a small school of 350 students that contained only the seventh and eighth grades. In addition, although students had a different teacher for each subject, they moved from one subject to the next with the same group of classmates. Notably, this study is unique in its consideration of *social* adjustment variables and its examination of student perceptions of the stressfulness of the transition experience.

In another study that examined adolescents' perceptions of the stressfulness of the transition to junior high school, Berndt and Mekos (1995) individually interviewed 101 students once during the spring of their sixth grade year and again during the fall of their seventh grade year, after they made the transition. Students responded to three open-ended questions (i.e., How do you feel about moving to junior high school?; What do you like most about moving to junior high?; What do you dislike most about moving to junior high?). Students' responses were coded into mutually exclusive categories that represented either positive or negative perceptions of the transition. The categories for positive comments were peer relationships (e.g., "I can hang around more people."), academics (e.g., "We can take French."), school environment (e.g., "We can pick our classes."), and independence (e.g., "We get to do more things for ourselves."). The negative comments were coded into the following categories: peer relationships (e.g., "I'll probably lose all my friends."), academics (e.g., "They give us a lot of homework."), school environment (e.g., "The school is too crowded."), and victimization (e.g., "The ninth graders always push you around."). Results indicated that sixth graders made significantly more positive than negative comments about the junior high school transition. Berndt and Mekos concluded that, although the students in their sample expected some aspects of the transition to be stressful, they viewed the entire experience as more positive than negative. In terms of gender differences, in sixth grade, girls made more negative comments about anticipated changes in peer relationships across the transition than did boys. However, in comparison to girls, sixth-grade boys expressed more concerns about victimization by older students in junior high school and less apprehension about the academic demands of junior high school. Following the

transition, boys and girls had more similar concerns, as reflected by their negative comments about academic work and the school environment. Berndt and Mekos suggest that researchers continue to examine how particular aspects of the junior high school experience affect adolescents' adjustment. These results also point to the importance of examining adolescents' peer experiences across the middle or junior high school transition.

Also with respect to social adjustment, Fenzel (2000) examined adolescents' perceptions of the extent to which they receive support from significant adults and peers and their perceived level of social competence. Adolescents who perceived themselves as more capable of making friends toward the end of elementary school reported experiencing lower levels of "peer strain" (i.e., stress related to relationships with peers) following the transition to middle school. In addition, social support from friends predicted increases in feelings of self-worth over time. Interestingly, Hirsch and DuBois (1992) found a significant negative correlation between peer social support and symptoms of psychopathology during the transition from elementary to junior high school. Thus far, middle school transition studies that have considered social adjustment have relied primarily on adolescents' perceptions of social support from peers. The current study examined social adjustment in more detail by including measures of peer acceptance, number of mutual friendships, and friendship quality.

#### *Friendship Quality and Stability*

In one of the few studies to consider the influence of the quality and stability of adolescents' friendships on their adjustment to junior high school, Berndt, Hawkins, and Jiao (1999) asked sixth grade students several open-ended questions to assess the number



and specific names of their best friends, and quality of their friendships (e.g., “Do you have any best friends?” and “Do you and your best friend ever talk about things that you wouldn’t tell most other people?”). In addition to the friendship interview, these researchers examined friendship stability, students’ self-esteem, peer-rated social behavior, teachers’ ratings of students’ behavior problems, and report-card grades. Results indicated that students who had high quality sixth-grade friendships that were also fairly stable across the transition increased in sociability and leadership from sixth to seventh grade. Students with less stable friendships and sixth-grade friendships that were high in behavior problems evidenced increases in behavior problems across the transition. Finally, sixth grade students whose friends were rated highly by peers on sensitivity-isolation, increased in their own sensitivity-isolation across the transition if the quality or stability of these friendships was low or average. Alternatively, if the quality or stability of these friendships was high, sixth graders’ sensitivity-isolation did not increase, even if they had sensitive-isolated friends. Berndt et al. (1999) conclude that friendship quality and stability may relate to the extent to which friends influence each other across this school transition. Overall, these results demonstrate that the quality and stability of students’ elementary-school friendships influence students’ behavior as rated by peers and teachers during the initial months of junior high school. Berndt and colleagues (1999) suggest a further examination of the influence of peers across the transition to middle or junior high school.

In a more recent study that examined the stability of peer relationships across the transition to middle school, Hardy and colleagues (2002) assessed peer rejection, peer acceptance, and reciprocated friendships across six waves of data collection (i.e., in May

of sixth grade, monthly during the fall of seventh grade, and in May of seventh grade). Participants included 134 students (66 boys, 68 girls) who completed the sociometric measures over the course of the study. Initially, parental consent was obtained for 72.6% of the sixth grade in the participating elementary schools. However, only sixty-six students (33 boys, 33 girls) participated in all six assessments. This small group of participants formed the sample that was used in all analyses. Attrition analyses revealed that the sixty-six participants who formed the final sample had, on average, better peer relationships (i.e., higher peer acceptance, lower peer rejection) than participating classmates who did not complete the entire six assessment sessions. Peer acceptance and peer rejection scores were derived from unlimited positive and negative friendship nominations. Friendship nominations were evaluated for reciprocity (i.e., dyads in which each child had nominated the other) and each friendship dyad was coded for previous familiarity (i.e., based on whether or not they had attended the same “feeder” elementary school). Reciprocated friendships were divided into the following groups: old, new with previously familiar peers, new with previously unfamiliar peers. The stability of the peer relationship variables was examined across two six-month intervals (i.e., Time 1 to Time 4 and Time 4 to Time 6). Results indicated that peer rejection was highly stable during both time intervals. For both boys and girls, stability of peer acceptance was lower during the pretransition interval than during the posttransition interval. Overall, the average number of reciprocated friendships declined across time. Although girls and boys had similar numbers of reciprocated friendships at each assessment, girls experienced greater instability in reciprocated friendships across the transition interval. Girls were also more likely than boys to nominate previously unfamiliar peers as friends.

Based on the results of this study, these researchers concluded that girls' peer relationships appear to be more sensitive to contextual influences than are boys' friendships. Hardy and colleagues (2002) point to the importance of further research examining links between peer relationships and measures of psychosocial adjustment for boys and girls making the transition to middle school, which is the focus of the present study.

### *Achievement Goals*

Several investigations (Anderman, Maehr, & Midgley, 1999; Anderman & Midgley, 1997; Midgley, Anderman, & Hicks, 1995) have established links between changes in adolescents' achievement goal orientations and declines in motivation and academic achievement either throughout the middle school years or across the middle school transition. In one study, 341 students completed self-report questionnaires that assessed their goal orientation (task vs. performance), their perceptions of the goal structure of their classroom (task vs. performance), and perceived academic competence in math and English (Anderman & Midgley, 1997). Task goals involve striving to improve one's skills, whereas performance goals focus on relative ability and providing correct answers. Students were assessed at the end of fifth grade and one year later, after they had made the transition to middle school. Information regarding students' grades and achievement test scores was collected at each assessment phase. Results indicated that, in comparison to the middle school assessment, students in fifth grade endorsed task goals more strongly, reported a greater emphasis on task goals during classroom instruction, and perceived themselves as being more academically competent. Following the transition to middle school, students reported more emphasis on performance goals

and significantly lower levels of academic competence. Anderman and Midgley report that there was a particularly sharp decline in academic competence for high ability students in this study. Although academic grades did not decrease across the transition for all students, the grades of low ability females and high ability males decreased significantly. These results indicate that an emphasis on personal achievement goals and classroom goal structures provides a promising framework for studying the transition to middle school. Anderman and Midgley highlight that, in addition to academic goals, future research should focus on changes in *social goals* across this transition. According to these researchers, “future studies of the middle school transition which attend to social as well as academic goals may lead to new insights on the causal dynamics involved in changes in motivation over the transition” (Anderman & Midgley, 1997, p. 294). As will be described in a later section of this paper, the present study addressed this issue by considering the role of adolescents’ goals and attributions in response to social failure situations across the transition to middle school.

#### *Academic Achievement*

Several of the studies (Alspaugh, 1998; Chung et al., 1998; Crockett et al., 1989; McDougall & Hymel, 1998) reviewed in this section have also considered changes in adolescents’ academic achievement across the middle or junior high school transition. Chung et al. reported that adolescents’ academic achievement declines across the transition. However, the studies on timing and number of transitions have reported that students in a 6-3-3 arrangement experience significantly greater decreases than students in an 8-4 school structure (Alspaugh, 1998; Crockett et al., 1989). McDougall and Hymel report that there are extensive individual differences in terms of changes in

academic achievement across the middle school transition. Again, further research is needed to clarify the factors related to possible changes in academic achievement across this transition.

#### *Directions for Future Research*

As literature reviewed in the preceding paragraphs indicates, the transition to junior high or middle school is a critical event in the lives of young adolescents. Overall, however, more research must be conducted in order for scientists and educators to better understand the complex array of factors that influence adolescents' adjustment across this transition. In order to clarify these relationships, both replication and extension of previous research are essential. The current study added to this literature by examining potential gender differences in adjustment; considering how adolescents' self-esteem, psychological adjustment, attitudes toward school and academic achievement change across the transition; and including an examination of adolescents' peer experiences and social goals across this critical juncture in development.

#### *Theoretical Basis for the Study of Friendship*

Harry Stack Sullivan (1953) is frequently cited as one of the first developmental theorists to emphasize that involvement in friendship makes vital contributions to children's and adolescents' psychological development and well-being. Sullivan's theory is based on the idea that psychological development is best understood in terms of interpersonal relationships. According to Sullivan, interpersonal relationships should be examined from a developmental perspective. More specifically, Sullivan outlined a developmental progression of specific interpersonal needs that emerge across various stages of development. As an individual develops, emergent interpersonal needs either

lead to feelings of security (when the needs are fulfilled) or to feelings of anxiety (when the needs are not met). At each stage of development, particular social relationships provide the most suitable context in which an individual's needs are satisfied.

Furthermore, children and adolescents acquire particular social skills and interpersonal competencies within the context of each of these fundamental interpersonal relationships (Buhrmester & Furman, 1986).

Sullivan (1953) asserted that from infancy through adolescence, personality development is greatly influenced by relationships with members of the immediate family, school personnel, and peers. Another major aspect of Sullivan's theory is that the emerging social needs are cumulative in nature. That is, as individuals move from one stage to the next, new interpersonal needs add to those that already exist. During Sullivan's first stage (0-2 years), infants' primary need is that of tenderness. Naturally, this need is satisfied mainly through interactions with parents. During the stage of childhood (2-6 years), the need for companionship or adult participation in children's play emerges. Throughout this stage, parents continue to serve as the primary means through which the social needs of tenderness and companionship are fulfilled. The juvenile era (6-9 years) is marked by the emergent social need for acceptance. At this stage, egalitarian relationships with other children become important. Although parents partially fulfill the need for acceptance, children also have a desire to be accepted by their peers. During the preadolescent stage (9-12 years), there is an emergent need for intimacy and consensual validation, which is fulfilled primarily through involvement in same-sex friendships or "chumships." During early adolescence (12-16 years), individuals encounter needs for sexual involvement and intimacy with an opposite-sex

partner. Although opposite-sex peers play an increasingly prominent role throughout adolescence, relationships with same-sex peers remain extremely important, offering provisions such as companionship and a context for intimate disclosure.

The stage that Sullivan (1953) refers to as preadolescence (9-12 years) roughly corresponds to the age range of the participants in the present study, who are being referred to as early adolescents. As such, a more detailed discussion of the emerging needs and key relationships that characterize this developmental stage will be provided. Of particular relevance to the present study is Sullivan's assertion that relationships with same-aged peers (i.e., friendships or "chumships") become more significant during the preadolescent years. During this developmental stage, the need for interpersonal intimacy emerges and becomes more important than the need for acceptance, which was of primary importance during the juvenile era. It is through relationships with a few close friends, generally of the same sex, that this need for intimacy is first satisfied. With friends or "chums," the young individual learns to divulge and receive private information and to build a close friendship that is based on loyalty and trust. As will be discussed further in a later section, involvement in a friendship also offers the benefit of consensual validation, as friends realize that their shared interests, fears, preferences, and hopes are valid and important. Through involvement in an intimate friendship, the preadolescent is building a foundation of skills to implement in both same- and opposite-sex relationships during adolescence and adulthood. Although Sullivan did not discuss these skills in more detail, Buhrmester and Furman (1986) suggested that these abilities include cooperation, compromise, competition, empathy, mutual self-disclosure, and perspective taking. According to Sullivan, an individual who does not experience

intimate relationships with friends will not develop these skills and will likely experience relationship difficulties as an adolescent or young adult.

Sullivan (1953) also believed that involvement in intimate friendships during preadolescence could have a corrective or therapeutic influence, helping to ameliorate interpersonal problems that may have developed during childhood. For example, involvement in a supportive relationship with a friend during preadolescence could assist an individual in overcoming feelings of insecurity that developed as a result of poor family or peer relationships. Friendship may also serve as a buffer against the negative effects of rejection by the larger peer group. Alternatively, Sullivan emphasized that lack of involvement in intimate friendships could lead to feelings of loneliness.

In recent years, researchers have empirically evaluated various aspects of Sullivan's theory. For instance, one study focused on the development of the need for companionship (Buhrmester & Furman, 1987). Results of this study indicated that during the juvenile stage (second grade), children perceived same-sex peers as providing the same amount of companionship that parents provide. However, consistent with Sullivan's theory, participants in the early adolescent stage (eighth grade) described same-sex peers as more frequent sources of companionship than parents. Research also supports Sullivan's idea that intimacy plays a more prominent role in preadolescent relationships. For instance, between preadolescence and adolescence, children's descriptions of friendship demonstrate a significant increase in the number of comments regarding sharing intimate thoughts and feelings (Berndt, 1981; Furman & Bierman, 1984).



Sullivan's theory does not refer to gender differences in the social needs that emerge at each developmental stage. In addressing this issue, Buhrmester and Furman (1987) found that boys and girls in second grade did not differ significantly in their ratings of intimacy in same-sex friendships. However, by fifth grade, girls' ratings of intimacy in their same-sex friendships were significantly higher than those of boys. This gender difference in level of intimacy in friendship became even more pronounced when the participants were in eighth grade. These findings indicate that during preadolescence, the role of intimacy in friendship becomes increasingly important, particularly for girls.

Buhrmester and Furman (1986) state that researchers have only just begun to conduct critical tests of Sullivan's hypothesis regarding the relative influence of peer groups and close friendships on psychological adjustment at various stages of development. Moreover, these researchers emphasize that in addition to determining the number of friendships a child has, it is crucial to assess the quality of these relationships. Using Sullivan's framework as a theoretical foundation, the current study addressed this limitation by assessing the impact of three different levels of adolescents' peer experiences (i.e., peer acceptance, friendship, and friendship quality) on adjustment across the school transition.

#### *The Significance of Peer Relations During Childhood and Adolescence*

Research has established that peer relationships significantly contribute to the social and emotional development of children and adolescents. Over the past decade, researchers have made conceptual and empirical distinctions between the various *types* of relationships that are encompassed by the broad concept of "peer relations." For instance, Bukowski and Hoza (1989) emphasize the distinction between two different

components or levels of children's peer experiences - popularity and friendship.

Popularity refers to a particular child's level of acceptance by the members of his or her peer group. In measuring popularity, the focus is on the peer group's unilateral judgments of individual children (Bukowski & Hoza, 1989). In contrast, friendship is a mutual, dyadic relationship. The measurement of friendship involves bilateral judgments, with a focus on pairs of children. Researchers have also emphasized the importance of examining a third level of children's peer experiences, that is, the *quality* of children's friendships. To assess friendship quality, children evaluate certain features of their mutual friendships (e.g., validation, conflict, companionship), during interview sessions or on a rating scale (Asher & Parker, 1989; Bukowski & Hoza, 1989). As many peer relations researchers have suggested, it is crucial to assess each of these levels of children's peer experience (i.e., popularity or peer acceptance, friendship, friendship quality), in order to determine the unique and overlapping contributions of these variables to children's adjustment. Although researchers have considered the role of children's peer experiences during the transition to kindergarten (e.g., Ladd, 1990; Ladd & Price, 1987), the role of peer acceptance and friendship across the middle school transition has received far less empirical attention.

#### *Peer Group Acceptance*

With respect to popularity, or level of peer acceptance, many researchers have focused on the negative effects of experiencing low levels of acceptance within the peer group. Thus far, rejection by the peer group has been linked to a variety of concurrent, short-term, and long-term difficulties, ranging from academic difficulties in elementary school to an increased risk for developing psychological disorders in adolescence and

adulthood (Kupersmidt, Coie, & Dodge, 1990; Parker & Asher, 1987). Overall, in comparison to their more popular peers, unpopular children view themselves as being less socially competent and have less positive expectations for success in social situations (Asher, Parkhurst, Hymel, & Williams, 1990). Unpopular children, particularly girls, also report experiencing higher levels social anxiety and avoidance in social situations (Hymel & Franke, 1985). To illustrate the pervasive effects of peer rejection and the importance of studying this construct, the empirical literature on this topic will be reviewed in the following paragraphs.

As a group, rejected children experience significantly more loneliness and social dissatisfaction than do their nonrejected counterparts. More specifically, Asher and Wheeler (1985) investigated how children's self-reported loneliness varies as a function of their status within the peer group. These researchers found that children who are rejected by their peers report experiencing significantly higher levels of loneliness than popular, average, or neglected status children (Asher & Wheeler, 1985). In addition, Hymel and Franke (1985) reported that rejected children's feelings of loneliness tend to remain stable over time. It is important to recognize that there is great variability in rejected children's self-reported feelings of loneliness. This variability may be due to several different factors. As Asher and colleagues (1990) suggest, the degree to which a particular rejected child reports feeling lonely may correspond to the severity of the peer rejection that the child experiences. Similarly, the variability in rejected children's loneliness may relate to the extent to which the peer rejection is chronic in nature. Importantly, a rejected child may be protected from feelings of loneliness if he or she is involved in at least one friendship (Asher et al., 1990). In addition, research on subtypes

of peer rejection indicates that aggressive-rejected children report lower levels of loneliness than withdrawn-rejected children (Parkhurst & Asher, 1992). These results may be due to the fact that aggressive-rejected children, particularly boys, have unrealistically high, inaccurate self-perceptions, which serve the self-protective function of buffering them from experiencing feelings of loneliness (Asher et al., 1990).

Aggressive-rejected children may also experience less loneliness because they are more likely to be involved in a mutual friendship than are withdrawn-rejected children (Asher et al., 1990). Overall then, research has demonstrated that peer rejection is negatively related to loneliness, but it appears this relationship is mediated by a variety of factors.

In addition to loneliness, rejection by the peer group places children at risk for developing other mental health difficulties, including symptoms of both internalizing and externalizing disorders. In one study, 1147 boys and girls who were originally assessed in third grade were followed up during sixth, eighth, and tenth grade (Coie, Terry, Lenox, Lochman, & Hyman, 1995). At each assessment phase, the participants' peers completed sociometric and behavioral nominations, and parents completed the Child Behavior Checklist (CBCL) as a measure of internalizing and externalizing symptomatology. At the three adolescent assessment periods, a DSM-III psychiatric interview was conducted with each participant. Results indicated that boys who were both aggressive and rejected in third grade exhibited increasingly severe internalizing and externalizing difficulties across the three adolescent assessments. For girls, childhood peer rejection was the only stable predictor of disorder as reported by parents, and childhood aggression significantly predicted self-reported externalizing difficulties (Coie et al., 1995). These researchers

concluded that children who are both aggressive and rejected are at the highest risk for developing chronic psychological problems in adolescence.

Other research has focused specifically on the relationship between peer rejection and the internalizing disorder of depression. More specifically, Panak and Garber (1992) examined the relationships among aggression, peer rejection, and self-reported symptoms of depression in third- through sixth-grade children at three separate assessment points over a one-year period. After controlling for initial levels of depression, these researchers found that increases in peer rejection and a depressogenic attributional style at Time 1 significantly predicted depressive symptoms one year later. Similarly, other research has demonstrated significant positive correlations among the variables of peer rejection, aggression, and depression (Dumas, Neese, Prinz, & Blechman, 1996). In sum, peer rejection is associated with an increased risk for developing both internalizing and externalizing symptoms. Several additional studies have yielded results consistent with those of the investigations reviewed above (e.g., Boivin, Hymel, & Bukowski, 1995; DeRosier, Kupersmidt, & Patterson, 1994; Laird, Jordan, Dodge, Pettit, & Bates, 2001; Ollendick, Weist, Borden, & Greene, 1992; Prinstein, Boergers, Spirito, Little, & Grapentine, 2000; Vandell & Hembree, 1994).

Peer rejection in childhood and adolescence has also been associated with mental health difficulties in adulthood. For instance, follow-back studies indicate that individuals who eventually develop schizophrenia are rated by their grade school teachers as being lonely and rejected by peers during childhood and adolescence (Kupersmidt et al., 1990). Several additional follow-back and follow-up studies have not specified a particular disorder, but have used contact with a mental health professional as an

indicator of mental health problems. These studies have found that individuals who experience rejection by their peers during childhood are more likely to obtain psychiatric services in late adolescence or early adulthood (Kupersmidt et al., 1990). It is important to note that the direction of the relationship between peer rejection and the development of psychological disorders is unclear. It has been suggested that, rather than certain peer experiences predicting or causing particular disorders, difficulty getting along with peers in childhood or adolescence may serve as a nonspecific predictor or marker of later psychological adjustment problems (Kupersmidt et al., 1990).

Researchers have consistently demonstrated a significant relationship between peer relationship difficulties and juvenile delinquency and adult criminality. Although follow-up studies using peer acceptance as a predictor are rarely conducted in this area, follow-back studies indicate that adolescents or young adults who commit crimes often have a history of severe and chronic peer rejection (Parker & Asher, 1987). In addition, several follow-up investigations have established predictive relationships between poor peer acceptance and later juvenile delinquency or adult criminality. In one particular longitudinal study, children who were rejected by their peers in fourth grade were more likely to commit delinquent offenses and display conduct problems at the five year follow-up assessment (Ollendick et al., 1992).

Peer relationship difficulties have been linked to school adjustment problems across several empirical investigations. In one study, three cohorts of second to seventh grade children were followed over the course of four years (DeRosier et al., 1994). These researchers considered the impact of the chronicity of peer rejection on academic and behavioral adjustment. Results indicated that all levels of peer rejection significantly

predicted greater rates of absenteeism. For the younger children in the sample, academic achievement was negatively related to the level of chronicity of the peer rejection. More chronic levels of peer rejection were also related to higher levels of teacher-rated externalizing and internalizing behaviors. Similarly, Ollendick et al. found that children who were classified as rejected in fourth grade performed less well academically, failed more grades, and were more likely to drop out of school at the five-year follow-up than children who were classified as popular, neglected, or average. In addition, teachers rated the rejected children as being more aggressive, exhibiting difficulties with inattention, and displaying more conduct problems than their peers at the follow-up assessment. Overall, research indicates that children who are rejected by their peers tend to experience more school-related difficulties, such as poor academic achievement, higher rates of absenteeism, and early school dropout (Buhs & Ladd, 2001; Jimerson, Egeland, Sroufe, & Carlson, 2000; Kupersmidt et al., 1990; Parker & Asher, 1987).

Based on the empirically established relationships between peer rejection and academic and psychological adjustment, it seems likely that low levels of peer acceptance would also predict poorer outcomes across the transition to middle school. Thus, the present study attempted to identify the relationships among peer acceptance, friendship experiences (e.g., participation in a friendship, friendship quality), and academic and psychological adjustment across this significant developmental transition.

#### *Friendship and Friendship Quality*

In addition to peer acceptance, it is important to consider the contribution of friendship relations to children's and adolescents' adjustment. As mentioned previously, friendship is a mutual, dyadic relationship that exists between two individuals (Bukowski

& Hoza, 1989). In recent years, researchers have recognized that involvement in a friendship provides children and adolescents with certain provisions, some of which differ from those that are obtained through involvement in the larger peer group. Importantly, researchers have also begun to broaden their conceptualization of friendship. Earlier investigations that considered the impact of friendship on adjustment focused on whether or not children have a mutual friend and the number of mutual friendships in which a particular child is involved. Both Bukowski and Hoza (1989) and Hartup (1996) have emphasized that it is also critical to examine the *quality* of a child's friendships. Friendships that are of lower quality may be lacking in several of the provisions that higher quality friendships offer. As such, children who have friends, but whose friendships are lower in quality, may be at risk for developing adjustment difficulties. The following paragraphs will highlight research on the crucial functions that friendships serve. In addition, a review of the literature on the unique contributions of both friendship *and* friendship quality to children's and adolescents' psychological adjustment will be provided. Whenever possible, emphasis will be placed on the role of friendship experiences in *early* adolescence and how these interactions with friends could influence adjustment across the transition to middle school.

In considering the functions of friendship, it is important to recognize that children may benefit from interactions with friends in ways that differ from interactions with other individuals (e.g., parents, teachers, siblings). According to Weiss's (1974) theory of social provisions, individuals seek particular provisions or types of support from the various relationships in which they are involved. Weiss initially proposed that individuals seek the following basic provisions: attachment, reliable alliance,



enhancement of worth, guidance, and opportunity for nurturance. Further, Weiss hypothesized that negative emotions result when individuals do not receive appropriate social provisions. Notably, it is only within recent years that researchers have begun to empirically examine this theory.

In a study that applied Weiss's theory of social provisions to children's social relationships, Furman and Buhrmester (1985) asked fifth- and sixth-grade children to rate the extent to which several qualities characterized their relationships with mothers, fathers, siblings, grandparents, friends, and teachers. Consistent with Sullivan's views regarding friendship in preadolescence, children viewed friends as providing the greatest source of companionship, and friends and mothers received the highest ratings of intimacy. In contrast, children rated mothers and fathers most highly on the provisions of affection, enhancement of worth, and instrumental aid. Interestingly, children reported experiencing more of a sense of control or power in their relationships with friends and siblings than in their relationships with adults. Children's responses also revealed that the highest level of conflict occurs in relationships with siblings (Furman & Buhrmester, 1985). Based on these findings, children's friendship experiences appear to offer unique provisions, however, there is also a considerable amount of overlap in benefits offered by the numerous relationships in which children are involved.

Over the past several years, many researchers have attempted to expand upon Weiss's (1974) theory by identifying additional provisions of childhood and adolescent friendships (e.g., Furman & Robbins, 1985; Hartup & Sancilio, 1986). In summarizing the literature on the functions of children's friendships, Asher and Parker (1989) highlight seven friendship functions that have appeared consistently in the literature on

children's friendships. These functions include providing opportunities for the development of social competence, self-validation and ego support, emotional support, intimacy, guidance and assistance, reliable alliance, and companionship. Each of these provisions will be expanded upon in the following paragraphs (see Asher & Parker, 1989, for a complete review).

During interactions with friends, children have the opportunity to develop interpersonal skills such as empathy, compassion, and loyalty. Within the context of friendship, children may also gain emotion management skills and discover what constitutes socially acceptable behavior (Fine, 1981; Parker & Gottman, 1989). Another function of friendship is that of self-validation and ego support. More specifically, friends may validate each other and enhance one another's self-esteem by providing compliments, expressing feelings of concern, listening intently, or seeking advice. Friends may also serve as a source of emotional support. For example, when faced with novel experiences such as school transitions, friends may provide reassurance and a sense of security during the exploration of a new environment. The notion that friendship provides opportunities for intimate self-disclosure has been well documented in the friendship literature. In terms of intimate self-disclosure, friends share secrets and personal information about themselves. As mentioned previously, the function of intimacy is thought to become more important as children move into adolescence (Berndt, Hawkins, & Hoyle, 1986; Buhrmester, 1990; Bukowski, Hoza, & Boivin, 1993). Furthermore, research has demonstrated that, in comparison to boys' friendships, girls' friendships involve higher levels of intimacy (Buhrmester, 1990). Children and adolescents also turn to their friends for guidance and assistance. That is, friends often

devote a considerable amount of energy and resources to helping each other accomplish goals or meet certain needs. In addition, friends assist each other by sharing and providing advice or information. As Weiss (1974) first described, friendship promotes feelings of reliable alliance or a sense of loyalty, faithfulness, and being available to provide assistance when help is needed. According to Berndt (1986), beginning in middle to late childhood, individuals place particular emphasis on loyalty in their descriptions of friendship. As Asher and Parker (1989) suggest, the function of companionship represents the “lighter side” of friendship. This friendship function involves engaging in enjoyable activities and having fun with a friend.

Children and adolescents who are not involved in a friendship or who are involved in lower quality friendships may not experience many of the social provisions described above. As a result, these children and adolescents are at risk for a variety of negative outcomes. In recent years, using both child and adolescent samples, researchers have found that in addition to peer acceptance, both involvement in friendship and friendship quality make separate contributions to numerous indices of psychological adjustment (e.g., loneliness, depression, self-esteem). For example, Parker and Asher (1993) found in a third- through fifth-grade sample that having a friend, friendship quality, and peer acceptance made distinctive contributions to the prediction of loneliness. More specifically, at all levels of peer acceptance, participants who did not have a best friend reported greater feelings of loneliness than those who did have a friend. Notably, although low-accepted children were at a greater risk for experiencing feelings of loneliness, the low-accepted children who had a best friend were less lonely than those who did not have a best friend. In addition to the experience of having a friend, the

*quality* of children's friendships appears to make a significant contribution to the prediction of loneliness. Indeed, Parker and Asher (1993) found that children with higher quality friendships experienced lower levels of loneliness. Therefore, children who experience higher levels of the friendship provisions discussed earlier (e.g., self-validation and ego support, emotional support, intimacy, companionship) within their mutual friendships tend to feel less lonely than those who are involved in lower quality friendships. Consistent with the developmental psychopathology perspective, involvement in friendship may serve as a buffer that protects individuals, at least in part, from developing psychological difficulties such as feelings of loneliness or depression when they encounter stressful life experiences (Parker, Rubin, Price, & DeRosier, 1995). Relatedly, those adolescents who are involved in friendships across the middle school transition, and particularly those who are involved in high quality friendships, may be less likely to exhibit adjustment difficulties such as loneliness and depression.

Other research has examined the relationship between children's friendship experiences and depression. As was discussed in the previous section, children who are rejected by the peer group are more likely to experience psychological problems such as depression (e.g., Boivin et al., 1995). Research also indicates that friendship experiences make a significant contribution to the prediction of depression. For example, using a sample of seventh- and eighth-grade students, Vernberg (1990) found that less contact with friends, lower levels of closeness with a best friend, and higher levels of peer rejection contributed to increases in depressive affect over a six-month period. In another study, Oldenburg and Kerns (1997) found that popularity and friendship quality made unique contributions to the prediction of depressive symptoms in fifth- and eighth-

graders. Recent research has also demonstrated that fourth- and fifth-grade children who are verbally and/or physically victimized by their peers (e.g., involved in experiences such as being hit, pushed, shoved, or called names) are less likely to develop internalizing and externalizing problems if they are involved in at least one mutual best friendship (Hodges, Boivin, Vitaro, & Bukowski, 1999).

A recent study conducted by Nangle and colleagues (2003) used structural equations modeling to examine links among peer acceptance, friendship quantity (i.e., number of mutual friendships), and friendship quality and the adjustment variables of loneliness and depression using a sample of 193 third through sixth grade children (103 boys, 90 girls). In a unique and comprehensive assessment of friendship, these researchers examined two different friendship levels (i.e., “good” friendships were defined as those in which either of two peers nominated the other and two gave each other a peer rating of at least 4, “best” friendships were defined by reciprocal positive nominations). Results supported a mediational model in which peer acceptance exerted an indirect influence on loneliness, through its associations with friendship quantity and quality. As expected, the friendship quantity and quality variables formed direct links with loneliness. In addition, the effects of the peer variables on children’s depression were mediated through loneliness. No gender differences were found in this study. The results suggest that it is the increased number and quality of the friendships of better-accepted children that protect them from feelings of loneliness. In turn, children with friendship difficulties experience loneliness and social dissatisfaction, which appears to be a precursor for depressed mood. Overall, this study lends further support to the

necessity of a multifaceted assessment of children's peer experiences, including the peer acceptance, friendship quantity, and friendship quality variables.

Several studies have examined the impact of involvement in friendship and various aspects of friendship quality on children's and adolescents' self-esteem.

Buhrmester (1990) investigated the relationship between one qualitative aspect of friendship, level of intimacy, and the outcome variables of social competence, depressive symptoms, and self-esteem with a sample of fifth- and sixth-grade students. Overall, involvement in friendships characterized by higher levels of intimacy was consistently and moderately correlated with higher levels of social competence, lower levels of anxiety and depression, and higher self-esteem for the adolescents in this sample. Using a broader conceptualization of friendship quality, Berndt and Keefe (1996) individually interviewed seventh and eighth graders regarding the positive and negative features of up to three of their best friendships and assessed self-esteem across several domains using Harter's (1985) Self-Perception Profile for Children. Results indicated that those adolescents who were involved in friendships with more positive features (i.e., intimate self-disclosure, prosocial behavior, self-esteem support) had higher self-esteem scores. Alternatively, adolescents whose friendships were characterized by negative features (i.e., conflict, rivalry) obtained significantly lower scores on several subscales of the self-esteem measure.

In another investigation, Townsend, McCracken and Wilton (1988) found in a sample of thirteen to twenty-five year olds that the qualitative aspect of intimacy in adolescents' friendships was more predictive of self-esteem than was popularity. Bishop and Inderbitzen (1995) examined how peer acceptance and friendship are related to self-

esteem with a sample of 542 ninth grade students. Results revealed that participants in different peer acceptance groups did not differ significantly in terms of their self-esteem scores. However, participants with at least one reciprocal friend had significantly higher self-esteem scores than participants who were not involved in a reciprocal friendship. Based on these results, Bishop and Inderbitzen emphasize the important role of friendship in the development of self-esteem for adolescents. As these two studies indicate, it is important to differentiate between the various levels of adolescents' peer experiences when considering the impact of peer relations on adjustment variables such as self-esteem. Therefore, the current study included both a multidimensional assessment of early adolescents' peer experiences (i.e., peer acceptance, friendship, friendship quality) and the adjustment index of self-esteem.

A recent study has also demonstrated the contribution of friendship to *adult* adjustment. Specifically, in a 12-year follow-up study, Bagwell et al. (1998) found that involvement in a mutual friendship in fifth grade uniquely predicted relationships with family members and feelings of self-worth in adulthood. In addition, individuals who participated in mutual friendships during childhood reported having higher quality relationships in adulthood. Conversely, lack of involvement in a mutual friendship in fifth grade was uniquely associated with symptoms of depression in adulthood (Bagwell et al., 1998). A recently published 18-year follow-up study using the same sample revealed predictive patterns consistent with those found in the 12-year follow-up study (Bagwell, Schmidt, Newcomb, & Bukowski, 2001). Results of the 18-year follow-up also emphasized that peer rejection and friendship make unique contributions to specific domains of functioning in adulthood (Bagwell et al., 2001). Overall, childhood and

adolescent friendships serve many important functions that impact both concurrent and long-term adjustment.

In addition to making contributions to the adjustment indices of loneliness, depression, and self-esteem, children's and adolescents' friendship experiences have been linked to various aspects of school adjustment, including school attitudes, involvement, achievement, and adjustment across school transitions (e.g., Berndt & Keefe, 1995; Ladd, Kochenderfer, & Coleman, 1997). This research will be more thoroughly reviewed in the next section.

#### *Links Between Peer Relations and School Adjustment*

Over the past decade, research has demonstrated that children's and adolescents' peer experiences make a significant contribution to various indices of school adjustment. Across empirical investigations, school adjustment has been defined in various ways. For example, several studies have focused on the influence of friendships on adolescents' behavior, attitudes, and self-perceptions, whereas other work has considered the relative contribution of different levels of peer experience (e.g., friendship, peer acceptance) to adolescents' academic achievement. Yet another body of literature has focused on the role of peer experiences in children's academic and social adjustment across the transition to kindergarten. Notably, although researchers have considered the role of children's peer experiences across the *kindergarten* transition, peer variables have not been examined extensively with respect to the transition to *middle school*. In order to demonstrate the importance of considering adolescents' peer experiences across the transition to middle school, the extant literature that has established links between peer experiences and school adjustment will be reviewed in the following paragraphs.



Across several investigations, Berndt and his colleagues have considered the influence of friendships on adolescents' attitudes toward school and their behavior at school (see Berndt, 1999, for a complete review). In one short-term longitudinal study involving 297 seventh and eighth graders, students completed self-report questionnaires regarding their level of involvement and extent of disruptive behavior in the classroom (Berndt & Keefe, 1995). Participants were also asked to nominate up to three best friends and report their perceptions of their friends' classroom involvement and disruptive behavior at school. For each friend that was nominated, participants completed a questionnaire that assessed various features of the identified friendship (e.g., positive features such as intimate disclosure and prosocial behavior, negative features such as conflict and rivalry). In addition, teachers were asked to report each participant's classroom involvement and disruptive behavior, and the grades that they received on the most recent report card. The information described above was collected at two different times, during the fall and again in the spring.

Results of this study indicated that students who had friends that described themselves as being disruptive during the fall assessment phase increased in self-reported disruption across the school year (Berndt & Keefe, 1995). In contrast, participants who were involved in best friendships that were characterized by more positive features increased in self-reported levels of involvement across the school year. Interestingly, teachers' ratings of the involvement of an individual's friends predicted changes in that individual's level of involvement as rated by teachers. In addition, the grades of multiple friends were a significant predictor of changes in a participant's grades during the school year. With respect to gender differences, girls were more influenced by their very best

friend in terms of self-reported disruptive behavior than were boys. Overall, these results suggest that both the characteristics of adolescents' friends and the quality of their friendships affect various aspects of their school adjustment (Berndt & Keefe, 1995).

In another examination of friends' influence on school adjustment, Berndt, Laychak, and Park (1990) considered the impact of friends on adolescents' motivation to achieve in school. For this study, friendship dyads were assigned to either a control or an experimental condition. In the experimental condition, the friendship dyads were asked to discuss six hypothetical dilemmas that would require an individual to make a choice between doing schoolwork and participating in another activity (e.g., deciding to stay home to study for a big exam for which you do not feel prepared or to go to a concert of a popular rock group). Friendship dyads that were assigned to the control group were exposed to the same hypothetical dilemmas, but were then asked to discuss topics unrelated to school. For both the experimental and control groups, students were required to decide between two choices, one that represented a high level of academic motivation and one that represented a low level of academic motivation. These decisions were made on an individual basis, both before and after the friendship dyad discussions. Results revealed that discussions of the dilemmas within the friendship pairs led to an increase in the similarity of friends' decisions. Additionally, discussions that were more agreeable in nature and involved a greater exchange of information resulted in a greater degree of change in the decisions of individual participants. As Berndt et al. (1990) suggest, these results point to yet another means by which peers may influence adolescents' school adjustment.

Other research has considered the impact of peer experiences on adolescents' academic achievement in the middle school context. Wentzel and Caldwell (1997) followed one sample of sixth graders for three years. Number of reciprocated best friendships (ranging from zero to three) and level of peer acceptance were obtained for each participant. In addition, using the reciprocal friendship information, groups of friends were identified. Academic achievement scores were calculated based on students' grades that were acquired from school records. Antisocial and prosocial behavior for each participant was assessed using peer nominations and teacher ratings. Each participant's level of psychological distress was also measured with the Weinberger Adjustment Inventory. Overall, Wentzel and Caldwell found a significant relationship between peer experiences and academic achievement. More specifically, group membership was the most consistent predictor of grade point average (GPA) in this sample. The relationship between peer group membership and GPA was indirect, due to a strong association between peer relations and prosocial behavior. These results suggest that the links between peer relationships and academic achievement are complex and likely mediated by additional factors such as prosocial behavior (Wentzel & Caldwell, 1997). More research is needed in order to further elucidate the relationships between peer influence and the school adjustment variable of academic achievement.

Thus far, few researchers have considered the influence of peers on adolescents' adjustment across the middle school transition. However, the impact of peer variables on adjustment across school transitions has been examined with younger samples. Over the past decade, Ladd and his colleagues have conducted several studies on the influence of peers on children's adjustment during the transition to kindergarten. As children enter

kindergarten, they are faced with many challenges such as gaining acceptance by new peers, becoming comfortable in the school environment, meeting the teacher's expectations, and developing the preacademic skills that are presented to them (Ladd, 1989; Ladd & Kochenderfer, 1996). As with any type of transition, many factors mediate a child's adjustment to a new school environment. For example, child characteristics such as gender, level of intelligence, and social skills seem to be important predictors of future school adjustment (Ladd, 1989). Research suggests that children's relationships with their parents, siblings, and peers (both inside and outside of the classroom) are also related to school adjustment outcomes (Ladd, 1989).

Specifically, in considering the adjustment from preschool to kindergarten, Ladd and Price (1987) found that children who exhibited higher levels of cooperative play in the preschool setting and who made extensive peer contacts in the preschool classroom tended to be more well liked by their peers in kindergarten than the children who behaved aggressively toward their peers in preschool. In addition, children who were more cooperative with their peers in preschool were rated as being more sociable by their kindergarten teachers. In this study, Ladd and Price found several other interesting results. For example, time spent in interactions with younger peers during preschool was negatively related to positive school attitudes during kindergarten, and the extent of contact with peers in the community during preschool was negatively correlated with anxious behavior in the classroom and school absences during kindergarten. Finally, those children who attended kindergarten with familiar peers and who were able to retain a larger number of their friends outside of school tended to view school more positively when they were in kindergarten. Therefore, as evidenced by this study, children's

experiences with peers play an important role in a successful negotiation of the transition from preschool to kindergarten.

In a continuation of the Ladd and Price (1987) study, Ladd (1990) followed the same sample of children throughout the kindergarten year. Overall, the results of this study provide further support for the hypothesis that children's experiences with peers are associated with their school adjustment. More specifically, children who entered kindergarten with a larger number of friends developed more positive perceptions of school by the second month of kindergarten (Ladd, 1990). In addition, making new friends in the classroom over the course of the kindergarten year was a significant predictor of gains in children's school performance. Conversely, peer rejection at the beginning of kindergarten predicted more negative attitudes toward school, higher levels of school avoidance, and lower academic achievement over the course of the school year (Ladd, 1990).

Ladd et al. (1996) have also considered the role of friendship *quality* in children's early school adjustment. These researchers hypothesized that children's friends in the classroom can serve either as supports or as stressors, based upon the extent to which they help children cope with the demands of school, and foster feelings of security, worth, belongingness, and competence. After administering a sociometric interview to several kindergarten classrooms, 82 of the children (40 boys and 42 girls who were involved in independent mutual friendship dyads) answered questions regarding five qualitative aspects of their friendship (i.e., validation, aid, disclosure of negative affect, exclusivity, conflict). Results indicated that, for boys, perceived conflict in friendships was associated with various aspects of school maladjustment, such as higher levels of

loneliness and school avoidance, and lower levels of school liking and involvement. In addition, for both boys and girls, the friendship feature of aid or assistance predicted improvements in school attitudes, and perceived exclusivity in friendship was correlated with lower levels of achievement. Overall, these results provide support for the premise that specific aspects of children's friendships can either promote or hinder a child's school adjustment.

Ladd and his colleagues have also examined how three different aspects of peer experiences (i.e., friendship, peer acceptance, peer victimization) make differential contributions to kindergarten children's school adjustment (Ladd et al., 1997). These researchers found that linkages between type of relationship and children's adjustment varied, depending on which aspect of adjustment was considered. For instance, having a larger number of friends, higher levels of acceptance by peers, and lower levels of peer victimization were related to high levels of school liking. However, peer victimization was the only type of relationship that uniquely predicted school avoidance. The results of this study provide evidence for the functional importance of various types of peer relations for young children across the transition to kindergarten (Ladd et al., 1997).

Most recently, Ladd, Birch, and Buhs (1999) have tested a model that explicates the relationships among components such as child characteristics (i.e., gender, cognitive maturity, family background), children's behavioral styles, peer and teacher relationship variables, classroom participation, and achievement across the first eight months of the kindergarten year. Overall, this research replicates and extends the kindergarten transition literature described above. According to this model, children's behavioral style (i.e., prosocial or antisocial) during the initial weeks of kindergarten predicts their level

of peer acceptance, number of mutual friendships, and quality of the child-teacher relationship. Direct paths were also found between children's classroom relationships and participation. Participation, in turn, was significantly associated with academic achievement. Interestingly, negative aspects of interpersonal relationships (i.e., peer rejection and teacher-child conflict) were strong negative predictors of participation in the classroom. Ladd et al. (1999) emphasize that these relationship features, in particular, serve as "stressors" or impediments to children's school adjustment.

Based on the studies reviewed at the beginning of this section, it is apparent that researchers have considered the influence of peer relationships on adolescents' attitudes toward school and academic achievement. However, this research has been conducted either during the course of one junior high/middle school year or across several years after students have already entered middle school. Ladd's research with kindergarten samples demonstrates that it is crucial to examine the role of peer experiences during normative school transitions. Given the rising importance of peers during adolescence and the changes in school structure that transitioning adolescents face, peers should definitely play a significant role across the transition to middle school. It is quite surprising, then, that the influence of peers across the transition from elementary to middle school has rarely been examined.

#### *A Social-Cognitive Perspective on Children's Social Competence*

Thus far, a large portion of the research on children's peer relationships has focused on establishing a connection between children's behavior and their level of peer acceptance (see Coie et al., 1990, for a review). In recent years, however, researchers who study children's social behavior have begun to examine how children who differ in

their level of peer acceptance may also vary in the types of cognitive processing that they employ in social situations (see Dodge & Feldman, 1990, for a review). For instance, many children who are rejected by their peers tend to behave aggressively. In order for interventions to effectively decrease the aggressive behavior and, in turn, possibly improve acceptance by the peer group, it is important to focus on the factors that *motivate* children to behave aggressively. Therefore, it may be possible to gain a more complete understanding of children's peer experiences across the transition to middle school by examining the social-cognitive processes underlying their behavior in social situations.

#### *A Guiding Theoretical Framework*

In recent years, several research teams have developed theoretical models to elucidate the relationships among children's social-cognitive processes, behavior, and peer acceptance (e.g., Crick & Dodge, 1994; Ladd & Crick, 1989; Rubin & Krasnor, 1986). The social information-processing model offered by Crick and Dodge (1994) provides a theoretical rationale for examining young adolescents' attributions and goals for social situations in the present study. Notably, this model is a reformulation of the social-information processing model proposed by Dodge (1986). According to the reformulated model, children enter a social situation with a collection of skills that are genetically limited and a database of information derived from their previous social interactions. More specifically, this database holds information such as social knowledge, schemas (e.g., scripts for how to enter a peer group), rules for social behavior, and memories of past social interactions (e.g., memories of having been rejected across several attempts to join a group of peers participating in an activity). When faced with social situations, children receive a variety of cues. The way in which



children process these cues is hypothesized to relate to their behavioral response. Crick and Dodge's model contains the following sequential steps: (1) encoding of external and internal cues, (2) interpreting the social cues, (3) selecting a goal, (4) accessing or constructing a response, (5) evaluating and selecting a response, and (6) performing a behavior. Crick and Dodge emphasize that, in contrast to previously proposed social-information processing models that are linear in nature, their model has a cyclical structure. This type of structure demonstrates that each of the steps in children's information processing are interrelated and influence each other through various feedback loops.

When children encounter social situations, they initially focus on certain internal or situational cues, and then they encode and interpret those cues. During these first two steps of the information-processing model, children's interpretations may be influenced by the knowledge that they have gained through previous social interactions. This knowledge will likely influence the types of causal attributions that children make for the reasons why particular social events have occurred (e.g., inferences about why a group of peers will not let a child sit with them during lunch). Research indicates that children who are more highly accepted by their peers tend to make attributions that lead to positive self-evaluations (e.g., internal attributions for positive social outcomes and external or situational attributions for negative outcomes). In contrast, children who are rejected by their peers are more likely to make external attributions for positive social outcomes (Ames, Ames, & Garrison, 1977).

After interpreting a social event, children choose a goal or preferred outcome for the situation (e.g., getting back at a peer, maintaining a friendship, avoiding interactions

with peers) during the third step of the model. According to Erdley and Asher (1999), the goal upon which children place the greatest level of importance will produce related behavioral strategies. For example, children who endorse retaliatory goals most strongly are likely to behave aggressively in their interactions with peers. Crick and Dodge (1994) hypothesized that response access or construction occurs during the fourth step of processing. During this step, children obtain possible behavioral responses from their long-term memory, or they may develop new behaviors in response to novel situations. Next, during step five, children select the behavioral response that they are going to enact. Numerous factors are involved in making this decision, such as the result that children expect to achieve by behaving in a particular way (i.e., outcome expectations), their evaluation of how appropriate a particular behavior is (i.e., response evaluation), and the amount of confidence that they have in their ability to successfully perform a particular behavior (i.e., feelings of self-efficacy). Finally, during the sixth step of this model, children enact the particular behavior that they have chosen.

The current study focused on the first three steps of the Crick and Dodge (1994) model. More specifically, this study assessed children's causal attributions and goals in response to social failure situations. Although previous research has examined children's academic goals (i.e., task vs. performance) and how children's social goals in the classroom setting relate to their academic adjustment, very few studies have investigated how children's attributions and goals regarding social situations relate to their social (i.e., peer acceptance, number of friends, friendship quality) and psychological adjustment.

Thus far, research that has examined the relationship between social-cognitive processes and social competence has focused on a social tasks perspective. This

perspective posits that children who experience peer relationship difficulties are not pervasively unskilled. However, they have developed maladaptive responses to particular social tasks (Erdley & Asher, 1999). Researchers have identified the social situations in which children with behavioral problems are most likely to experience social difficulties (Asher, Parker, & Walker, 1996; Dodge, McClaskey, & Feldman, 1985). The three main social tasks that have been most extensively investigated include ambiguous provocation situations (i.e., situations in which a child is harmed by a peer, but it is not clear whether the harm was intentional or accidental), interpersonal conflict situations (i.e., situations involving a clear discrepancy between the needs or interests of one person and those of another), and social failure situations (i.e., situations in which children's attempts to join a peer group are rejected or ignored). In this area of research, children are typically presented with hypothetical situations that are followed by a series of questions designed to assess social-cognitive processes such as attributions and goals. Research has produced similar findings across these three types of situations. Given that the present study examined adolescents' attributions and goals in response to social failure, this discussion will focus on research that has utilized the social failure task.

According to the social tasks perspective, dealing with social failure is an especially challenging task for children and adolescents. Indeed, it is estimated that as many as half of children's attempts to initiate interactions with peers are either rejected or ignored (Putallaz & Wasserman, 1990). Research demonstrates that there are large individual differences in how children respond to social failure situations. Goetz and Dweck (1980) reported that some children react to social failure with helplessness (e.g., withdrawal, negative affect), whereas other children demonstrate a mastery-oriented

response (e.g., persistence, positive affect). Given that successful group entry is a precursor to further social involvement, it is important for researchers to examine how children differ in their reactions to failed attempts to initiate interactions with peers. The limited body of research that has examined children's attributions and goals in response to social failure situations will be reviewed in the following paragraphs.

### *Attributions for Social Failure*

Across a relatively small number of studies, researchers have considered the relationship between children's attributions for social failure and several different variables. For instance, some studies focus on the association between children's attributions and their status within the peer group, whereas others concentrate on the relationship between children's attributions and their social goals. A review of this literature indicates that children's attributions for social failure situations have not been systematically investigated, and much more research on this topic is needed.

A few studies have established links between children's attributions for social success and failure and their level of peer group acceptance. In a classic study, Ames et al. (1977) presented 40 high-accepted and 40 low-accepted fourth- through sixth-grade children with 24 hypothetical classroom situations describing an interaction with a classmate that resulted in either a positive or a negative outcome. Children were told to pretend that they were involved in each situation. Following each hypothetical situation, children were asked to choose one of three statements that represented the cause (i.e., internal, external, mutual) of the interpersonal outcome. Results indicated that children who were more highly accepted by their peers tended to attribute successes in social situations to internal factors, such as their own ability, and social failures to external

causes, such as a peer being in a bad mood. Comparatively, low-accepted children attributed social failures to internal causes, such as their own poor social ability, and gave credit for their social successes to external factors, such as a peer's friendly mood. These results have been replicated across several more recent investigations (e.g., Earn & Sobol, 1990; Toner & Munro, 1996).

Earn and Sobol (1990) expanded upon the design of the Ames et al. (1977) study by examining additional dimensions of children's attributions for social success and failure. In this study, fourth and fifth grade participants were presented with 12 hypothetical situations. Following each statement, children were asked, "Why do you think this would happen?" Responses were coded along the dimensions of locus (internal, mutual, or external), stability (stable or unstable), and controllability (controllable, mediate, or uncontrollable). Based on sociometric ratings of both acceptance and rejection (i.e., children were asked to nominate three classmates with whom they would most like to play and three children with whom they would least like to play), children were classified into the following four peer acceptance groups: popular (i.e., high acceptance, low rejection), rejected (i.e., low acceptance, high rejection), controversial (i.e., high acceptance, high rejection), and isolated (i.e., low acceptance, low rejection). The results of this study revealed that the popular children tended to make attributions that were significantly more controllable than those provided by the other four groups of children. In addition, consistent with previous findings, popular children tended to attribute their social successes to internal causes more often than the other three peer status groups.

In a more recent investigation, Erdley, Pietrucha, and Qualey (1997) considered the relationship between children's attributions for social failure and their social goals. In this study, 149 fourth- through sixth-grade children responded to four hypothetical social failure situations, and answered questions that assessed factors such as their attributions regarding the social failure and the extent to which they would be trying to accomplish various goals in the situation (i.e., retaliation, avoidant, relationship). These researchers found that children who blamed their social failures on personal inadequacy (i.e., Am I not so good at making friends?) were significantly more likely to endorse socially avoidant goals (e.g., trying to stay away from the other children). In contrast, children who attributed their social difficulties to a lack of effort (e.g., Did I not try hard enough?) were more likely to pursue relationship-oriented goals (e.g., trying to still get along with the other children).

#### *Goals in Social Failure Situations*

In one of the first studies to examine the kinds of goals that children pursue in interpersonal situations, Renshaw and Asher (1985) presented 121 third- through sixth-grade children with four different hypothetical situations. Notably, one of these four situations involved peer group entry (i.e., You see two children getting out a game of Monopoly. You go over to them to play and they say, "Hey, we didn't ask you."). In the first phase of the interview, explicit goals were not provided and children were asked what they would be trying to do in the situation. Next, children were asked to rank four specific goals indicating what they would be trying to do in each situation. Children ranked the following goals, which varied on the dimensions of friendliness and assertiveness: friendly-assertive (e.g., Try to join in the game), friendly-submissive (e.g.,

Try to do what the other kids say), unfriendly-assertive (e.g., Try to disrupt the kid's game), and unfriendly-submissive (e.g., Try to keep to yourself). Children also completed peer acceptance ratings for each of their classmates. Results indicated that there were significant individual differences in the goals that children generated and the order in which they ranked the provided goals. Older children and more highly accepted children tended to place higher priority on friendlier goals. With respect to the friendship situation (i.e., One day at recess you see your friend playing with a child that you dislike), poorly accepted children were more likely to suggest avoiding the situation, whereas highly accepted children were more likely to indicate that they were willing to join the two children. Overall, there was significant overlap among peer acceptance groups in terms of children's recognition of the appropriateness of various goals. Renshaw and Asher suggested that future research focus on other social-cognitive processes, such as children's attributions, that may lead children to pursue different goals. The current study addressed this suggestion by including an assessment of children's attributions and goals in response to social failure situations.

A more recent study examined the role of goals in children's responses to social failure (Erdley, Cain, Loomis, Dumas-Hines, & Dweck, 1997). This study focused on performance and learning goals, which have been examined within the academic achievement domain (see Dweck and Leggett, 1998). As was discussed in the middle school transition section, children who focus on performance goals are concerned with obtaining positive judgments of their performance and avoiding negative evaluations. In contrast, children who focus on learning goals are more concerned with trying to improve their skills. In the Erdley, Cain et al. (1997) study, fourth- and fifth-grade children were

faced with the task of trying out for a pen pal club that involved the possibility of social failure (i.e., not being accepted into the club). Children were told by the experimenter to focus either on a performance goal or a learning goal prior to trying out for the club. As part of the design of the study, all participants failed at their first attempt to join the club. The experimenter encouraged each child to make a second attempt to join. These researchers were interested in whether children would vary in their responses to social failure based on the type of goal to which they were oriented. Results indicated that children in the performance goal condition demonstrated more helpless responding to social failure. For instance, these children used fewer strategies when trying to join the pen pal club and they were less likely to accept the invitation to try a second time. In addition, these children were likely to attribute their failure to an uncontrollable incompatibility between themselves and the child who rejected them. In comparison, children in the learning goal condition exhibited mastery-oriented responding when faced with social failure. These children demonstrated greater persistence during their second attempt to join the pen pal club. In terms of attributional style, these children were more likely to attribute their failure to a lack of effort, which seemed to promote their further efforts. Overall, these results demonstrate that children's endorsement of performance versus learning goals can influence their responses to social failure situations. As such, the present study included learning and performance goals, in addition to social goals that are more typically assessed (e.g., retaliation, avoidant, relationship).

In another study that examined the relationship between children's responses to social failure and their goals, fourth- through sixth-grade students were given four hypothetical situations in which they were told to imagine that a group of peers rejected



their attempt to join an ongoing group activity, such as a game (Erdley & Pietrucha, 1995). Results indicated that aggressive children rated retaliation goals significantly higher than did their peers. Children who tended to exhibit withdrawn behavior endorsed avoidant goals significantly more strongly. Prosocial children rated relationship-maintenance goals higher than did children who were withdrawn, and the withdrawn children rated relationship maintenance goals more highly than did aggressive children. In addition, the endorsement of retaliation goals was positively correlated with peer ratings of aggressive behavior and negatively related to peer ratings of prosocial behavior and level of peer acceptance.

Researchers have also reported consistent gender differences in children's goals for social failure situations. For example, Erdley, Qualey, and Pietrucha (1998) found that boys placed more emphasis on retaliation goals than did girls. In contrast, girls gave higher ratings to relationship-maintenance goals than did boys. Similarly, Erdley, Cain et al. (1997) found that girls rated learning goals more highly than did boys, whereas boys rated performance goals significantly higher than did girls. These results correspond to the findings of research (Forbes, Katz, Paul, & Lubin, 1982) that has revealed that boys are more concerned with their peer group status and girls are more concerned with developing and maintaining interpersonal relationships.

#### *Directions for Future Research*

Although several studies have examined children's *academic* goals across the middle school transition, researchers have not yet considered the influence of attributions and goals in *social* situations during this critical developmental period. Once again, this is quite remarkable, given that involvement in social situations with peers becomes

increasingly important during early adolescence. Results of a pilot study conducted in preparation for this study point to the importance of considering the role of these social-cognitive processes across the middle school transition (Newman, Erdley, & Matthews, 2000). More specifically, this study examined the relative contributions of children's peer acceptance, involvement in friendships, friendship quality, and social goals and attributions in predicting loneliness across the transition from elementary to middle school. At Time 1, 146 fifth-grade children (68 boys, 78 girls) were asked to rate how much they liked to play with each of their classmates (acceptance ratings), circle the names of their three best friends (positive nominations), complete a loneliness measure, and rate the quality of their best friendship. The same questionnaires were administered at Time 2, approximately one month after students entered middle school. Results indicated that, in several instances, adding social goals and attributions to the regression model improved upon the prediction of loneliness. For both boys and girls, several of the attribution and social goal variables added to the prediction of loneliness within Time 1. In addition, for boys only, attributions added to the prediction of loneliness from Time 1 to Time 2. These results indicate that an examination of the attributions and goals that children make in social failure situations predict psychological adjustment, above and beyond their peer relationship experiences.

The present study expanded upon the design of this pilot study in several ways. First, this study examined the extent to which children's attributions and goals changed across the transition to middle school. Within the academic achievement domain, researchers have found that children are more oriented toward learning goals in elementary school and tend to focus more on performance goals following the transition

to middle school. It was of interest to explore whether or not this pattern occurs with respect to children's endorsement of learning and performance goals in social situations. Second, this study expanded upon the design of the pilot study by examining other aspects of children's adjustment (e.g., depression, self-esteem, school involvement, academic achievement, school avoidance) in addition to loneliness. The present also investigated relationships among the attribution and social goal variables, the peer variables, and the adjustment variables. Finally, gender differences in children's endorsements of attributions and goals were explored.

### *Present Study*

In summary, there are several ways in which this study addressed the limitations of previous research to contribute to an enhanced understanding of the complex interplay among the factors that influence adjustment during the middle school transition experience. First, and perhaps most importantly, this study was among the first to examine the influence of early adolescents' *peer experiences* (i.e., peer acceptance, number of friends, friendship quality) and their goals and attributions for *social* situations across this crucial normative transition. Participants were assessed during the spring of their fifth grade year (Time 1) and again during the fall of their sixth grade year, approximately two months after entering middle school (Time 2). This short-term longitudinal design allowed for an examination of the role of peer and social-cognitive variables in the prediction of participants' adjustment to middle school.

Second, whereas previous middle school transition studies have focused on one or two domains of adjustment, this study included a more comprehensive assessment of participants' functioning. In terms of *psychological* adjustment, participants' loneliness,

depression, and self-esteem were assessed. *School* adjustment was based on academic achievement in four subject areas (i.e., English, science, social studies, math), a measure of school avoidance (i.e., number of days absent from school), and self-reported involvement in school. The peer variables of peer acceptance, number of friends, and friendship quality served as a measure of *interpersonal* adjustment. The measure of attributions and goals tapped into *social-cognitive* functioning.

Third, as noted in the literature review, researchers have reported inconsistent results with respect to gender differences in adjustment across the middle school transition. The present study will add to this literature by examining potential gender differences in the role of peer experiences, and attributions and goals surrounding social situations in the prediction of adjustment. These relationships were examined within Time 1, within Time 2, and across the transition (from Time 1 to Time 2).

### *Hypotheses*

The following four sets of hypotheses were derived from the theoretical and empirical research base discussed previously.

#### *Relationships among Variables*

For both boys and girls, peer acceptance, friendship, and friendship quality were predicted to correlate positively at both Time 1 and Time 2. In addition, the peer variables were expected to correlate positively with self-esteem and negatively with loneliness and depression. Based upon the kindergarten transition research (Ladd & Price, 1987; Ladd, 1990), it was hypothesized that, at both Time 1 and Time 2, academic achievement and school involvement would correlate positively with peer acceptance,

and school avoidance (i.e., proportion of days absent from school) would correlate negatively with peer acceptance. Regarding the social-cognitive variables, it was expected that relationship maintenance and learning goals would correlate positively with the peer variables, and avoidance, retaliation, and performance goals would correlate negatively with the peer variables. In addition, the more controllable attributions (i.e., internal/situational, external/situational) were anticipated to correlate positively with the peer variables (Earn & Sobol, 1990).

#### *Examining Change across the Transition*

Commensurate with previous research on the transition to middle school and self-esteem (Fenzel, 2000; Simmons & Blyth, 1987; Wigfield et al., 1991) and depression (Chung et al., 1996; Hirsch & Rapkin, 1987), it was hypothesized that, particularly for girls, self-esteem would decrease and symptoms of depression would increase across the transition (i.e., from Time 1 to Time 2). Consistent with prior research on academic adjustment across this transition (Chung et al., 1998; Eccles & Midgley, 1989; Simmons & Blyth, 1987), the academic achievement level and self-reported school involvement of both boys and girls were predicted to decrease across the transition. Analogous to research on academic achievement goals (Anderman & Midgley, 1997), it was expected that children's endorsement of learning goals for social situations would decrease from fifth to sixth grade, whereas their ratings of performance goals would increase across this transition.

#### *Predicting Adjustment*

For both boys and girls, it was hypothesized that the peer relationship variables would significantly predict adjustment (i.e., loneliness, depression, school involvement,

self-esteem, academic achievement, school avoidance) both concurrently (within Time 1 and within Time 2) and across time. Based on the pilot study conducted by Newman et al. (2000), for both boys and girls, it was anticipated that the attributions and goals for social failure would add to the prediction of adjustment across the transition, above and beyond the peer variables.

#### *Comparisons by Peer Status*

In concert with research examining the correlates and consequences of peer acceptance (Asher & Wheeler, 1985; Coie et al., 1995), in comparison to low-accepted children, high-accepted children were expected to have significantly more mutual friends, and friendships of higher quality at both Time 1 and Time 2. High-accepted children were also predicted to experience significantly lower levels of loneliness and depression, and higher levels of self-esteem than low-accepted children at both Time 1 and Time 2. In contrast to high-accepted children, it was anticipated that low-accepted children would evidence significantly greater declines in self-esteem, school involvement, and academic achievement, and greater increases in loneliness and depression across the transition to middle school.

## CHAPTER 2: METHOD

### *Participants*

Elementary and middle schools from six public school districts located in low- to middle-income communities in Eastern Maine were recruited for this study. Participating schools included nine kindergarten through fifth grade elementary schools, one third through fifth grade elementary school, and six sixth through eighth grade middle schools. Three of the middle schools received students from only one “feeder” elementary school (57% of the sample,  $n = 207$ ), two of the middle schools each received students from two elementary schools (32% of the sample,  $n = 118$ ), and one middle school received students from three elementary schools (11% of the sample,  $n = 40$ ). Children were initially recruited when they were in fifth grade and were followed into their sixth grade year. Data were collected from all students who had permission from their parent/guardian to participate in this project (see permission form in Appendix A). In addition, children were asked to give their own assent prior to the administration of the procedures in the classroom (see assent script in Appendix B). Sixty-two percent ( $n = 397$ ) of the fifth grade student population from the six school districts participated in this project.

The final sample included 365 students (175 boys, 190 girls; 99% European American) who participated in both the Time 1 (spring of fifth grade) and Time 2 (fall of sixth grade) assessments. The mean age of participants was 11 years, 2 months at the elementary school assessment and 11 years, 8 months at the middle school assessment. There was a student attrition rate of 8 % (32 participants) between Time 1 and Time 2, primarily representing students who moved away from the participating districts.

### *Procedure*

The data were collected across four testing sessions, each lasting approximately 45 minutes. Sessions one and two occurred during the spring of the participants' fifth grade year (Time 1), while sessions three and four took place during the fall of the participants' sixth grade year (Time 2). All experimental sessions were conducted in the children's classrooms and the measures were group administered. At the beginning of the initial classroom session, the investigator told participants that she was interested in learning more about the way children think and feel about themselves, their friends, and their experiences at school so that she could understand and work with students more effectively. Students were also informed that the investigator was interested in finding out what it was like to be a fifth (or sixth) grade student by obtaining information from the "experts," that is, the students themselves.

In the first session, children were asked to rate how much they like to play with each of their classmates (peer acceptance ratings), circle the names of their best friends (unlimited positive nominations), and to indicate their very best friend. They also completed measures that assessed feelings of loneliness, depression, and involvement in school. Prior to session two, we identified mutual best friendship dyads for each participant based on the sociometric nomination data. Specifically, a mutual best friendship was defined as an instance in which each member of a dyad nominated the other as one of his or her best friends. For each participant, a total number of mutual friendships was recorded.

During the second session, children completed a friendship quality questionnaire with respect to one of their previously identified friendships. To select one friendship for



each child to rate, the following decision rules were used: 1) if a child had a mutual friendship with someone that he or she had chosen as a *very best* friend, we selected that friendship for the child's friendship quality rating; 2) if a child did not choose a very best friend or if an identified very best friendship was not reciprocated, we randomly selected one *mutual* friendship for the child to rate; 3) children who did not have a mutual friendship completed a friendship quality questionnaire regarding a child they nominated as a best friend, but who did not reciprocate that nomination; 4) if a particular child chose not to nominate any best friends, that child completed a friendship quality questionnaire with respect to a child that he or she rated highly on the peer acceptance measure. It should be noted that friendship quality data for the nonreciprocated friendships (i.e., dyads selected based on criteria 3 or 4 above) were not considered in the data analyses. Based on the unlimited nomination procedure that was utilized to identify friendships in this study, 4.7% of the sample at Time 1 ( $n = 17$ ) and 3.8% of the sample at Time 2 ( $n = 14$ ) did not have a mutual friendship.

Also during the second session, children completed a measure that assessed their self-concept across several different domains, they were presented with five hypothetical stories describing socially challenging situations, and they were asked to report their grades across four subject areas. To conclude the study, approximately six weeks after entering middle school, children were asked to complete the same sets of questionnaires. Once again, this was accomplished in two classroom visits (sessions three and four), which were spaced approximately two weeks apart.

With the exception of the friendship quality measure, all questionnaires were read out loud to ensure that all children understood, regardless of their reading level. Children

were taught how to use each response scale via several practice items. Given that a portion of this project involved children's evaluation of their feelings toward their peers, there was some risk that children may have felt uncomfortable answering the questions. Therefore, children were assured that their responses would remain confidential and they were repeatedly reminded not to discuss their answers with their peers at any time during questionnaire administration or upon completion of the assessment. To assure the privacy of their responses, children wrote their answers on individual packets. While the questionnaires were being administered, folders were set up on each child's desk to shield the child's answers from nearby students. In addition, children were told that they could cross out any questions that they felt uncomfortable answering and that they were allowed to terminate their participation at any time during the sessions.

### *Measures*

#### *Sociometric Assessment*

Children's level of peer acceptance was assessed by presenting students with a class roster (listing only those students who had permission to participate) and asking them to rate each of their peers on a 1 (*I don't like to*) to 5 (*I like to a lot*) Likert scale (see Appendix C). At Time 1, children responded to the question, "How much do you like to *play* with this person at school?" Given that students were slightly older at the Time 2 assessment, they answered the question, "How much do you like to *spend time* with this person at school?" A child's peer acceptance score was the mean rating received from all participants in the classroom who rated him or her.

For the peer nomination measure, children were asked to circle the names of their best friends on a separate list (see Appendix D). Previous research has typically utilized

a *limited* sociometric nomination procedure (i.e., children are permitted to circle no more than three names on the nomination list). To gain a more ecologically valid assessment of children's involvement in mutual friendships, it has been suggested that researchers use an *unlimited* nomination procedure (i.e., children are instructed to circle the names of their best friends and no restriction is placed on the number of names that they can circle; W.M. Bukowski, personal communication, September, 2000). Based on this recommendation, the present study utilized the unlimited nomination procedure. Given that middle school students are likely to have friends outside of their particular classroom, it has also been suggested that children make their best friend nominations from a roster listing all of the participating students in their grade, rather than listing only classmates (W.M. Bukowski, personal communication, September, 2000). To remain consistent, we used this method of assessing friendship at both Time 1 and Time 2. At Time 1, children chose from a list of all of the participating students in their grade. At Time 2, nominations were completed either by grade level or by separate middle school teams, depending on the size and structure of the participating middle schools. After identifying their best friends, children were asked to select a very best friend from one of the names that they circled and write this name in a separate space below the grade level or team roster. A child's peer nomination score was the total number of mutual friendships in which he or she was involved. This score ranged from 0 to 10 at Time 1 and from 0 to 15 at Time 2 across the entire sample in the present study. The mean number of mutual friendships was 3.80 at Time 1 and 4.17 at Time 2.

These rating and nomination sociometric measures are used frequently in the study of children's peer relationships. In addition, researchers have demonstrated

adequate to high test-retest reliability using these methods with elementary school-aged samples across several different studies (see Gresham & Little, 1993, for a review).

Overall, research indicates that the test-retest reliability of sociometric rating scores is higher than the test-retest reliability for peer nomination scores. Given that each child's average peer acceptance rating is an average of the ratings received from *many* other peers in the classroom, a change in the ratings provided by a few classmates has a minor effect on an individual child's average rating score across repeated assessments (Asher & Hymel, 1981). The data collected for the present study demonstrated adequate test-retest reliability across the six-month time interval from Time 1 to Time 2 for both the sociometric ratings ( $r = .58, p < .01$ ) and the peer nomination measure ( $r = .43, p < .01$ ).

### *Loneliness*

Using the Asher and Wheeler (1985) Loneliness and Social Dissatisfaction Questionnaire, children rated themselves on a 1 (*that's not true at all about me*) to 5 (*that's always true about me*) scale across 24 items, 16 of which assess feelings of loneliness and social dissatisfaction at school (e.g., "I feel alone at school." and "There are no other kids I can go to when I need help at school.") and 8 of which are filler items (see Appendix E). This measure has been used extensively with third through sixth grade children (Asher et al., 1990). Results of factor analyses reported by Asher et al. revealed a single factor comprised of 16 primary loneliness and social dissatisfaction items. This measure has high internal consistency, with alpha coefficients of .90 and above across several studies (Asher et al., 1990). Reliability analyses based on data collected for the present study revealed adequate test-retest reliability across the transition ( $r = .65, p <$

.01) and high internal consistency (coefficient  $\alpha = .92$  at Time 1, coefficient  $\alpha = .93$  at Time 2).

### *Depression*

Children's feelings of depression were assessed using the Children's Depression Inventory (CDI; Kovacs, 1985), a 27-item self-report questionnaire that assesses the presence and severity of affective, cognitive, and behavioral symptoms of depression. For each item, participants chose one of three responses that described their feelings and ideas during the past two weeks (e.g., "I am sad once in a while/I am sad many times/I am sad all the time"). Responses were scored on a 3-point scale ranging from 0 (symptom is absent) to 2 (symptom is present most of the time). In the present study, the one item regarding suicidal ideation was excluded for ethical reasons. As such, children could obtain a total score that ranged from 0 to 52 across 26 items, with higher scores indicating greater incidence and severity of depressive symptoms (see Appendix F). The psychometric properties of this scale have been examined extensively. Alpha levels ranging from .70 to .86 have been reported with samples of child and adolescent psychiatric inpatients and with non-referred children (Carey, Gresham, Ruggiero, Faulstich, & Enyart, 1987; Kovacs, 1985). The three-week test-retest reliability for the CDI is .77 for fifth grade boys and .74 for fifth grade girls (Smucker, Craighead, Craighead, & Green, 1986). Clinical and non-referred children and adolescents can be somewhat reliably discriminated using CDI scores; however, it is not recommended that the CDI be used as a diagnostic tool (Carey et al., 1987; Fristad, Emery, & Beck, 1997). Kovacs (1985) suggested that the CDI be used as a screening device to assess severity of depressive symptoms and as a measure of change. Test-retest reliability for the CDI in

the present study was .58 ( $p < .01$ ) across the entire sample. High internal consistency was also found, with alpha levels of .90 at Time 1 and .93 at Time 2.

Based upon previous research on depression in children (Finch, Saylor, & Edwards, 1985; Smucker et al., 1986) participants in the present study who received a CDI score of 16 or greater were considered to be experiencing significant levels of depressive symptoms. When a participant obtained a CDI score of 16 or greater, the researcher informed the appropriate school official (i.e., school guidance counselor, principal) and worked with the school official to notify the child's parent or guardian. In the present study, 12.3% of the sample at Time 1 ( $n = 45$ ) and 9.3% of the sample at Time 2 ( $n = 34$ ) obtained CDI scores of 16 or greater. Eighteen children had scores of 16 or greater on this measure at both Time 1 and Time 2.

#### *Involvement in School*

The nature and extent of children's involvement in school was assessed using the 12 school involvement items from the Attitudes Toward School self-report questionnaire (Berndt & Miller, 1990). For this measure, children rated their participation in school-related activities on a 1 (*never*) to 5 (*very often*) scale. The 12 school involvement items, adapted by Berndt and Miller from Moos and Trickett (1974), assess school-related involvement in classroom and school-related activities (e.g., "How often do you take part in class discussions or activities?", "How often do you put a lot of energy into what you do in school?"). Higher scores on this subscale reflect greater involvement in school (see Appendix G). Internal consistency for the school involvement items, based on Cronbach's alpha, has been reported to range from .77 to .83 (Berndt & Miller, 1990; McDougall & Hymel, 1998). In the present study, internal consistency for these items

was .81 at Time 1 and .83 at Time 2, and test-retest reliability was .66 ( $p < .01$ ). Several researchers have used the 18-item School Value self-report questionnaire, adapted by Berndt and Miller from Eccles, Adler, and Meece (1984), in combination with the School Involvement measure. The School Value measure contains questions regarding children's beliefs about the utility of school learning (e.g., "I think school is useful for the job I want."), the importance of school success (e.g., "I care a lot about doing my best in school."), and interest in schoolwork (e.g., "I am interested in the work my teachers give me."). Higher scores on this subscale indicate that a higher value is being placed on school. According to Berndt (personal communication, September 2000), research indicates that these two measures correlate highly with one another. As such, they appear to be assessing a similar construct. Based on this information, only the School Involvement measure was used in the present study.

### *Friendship Quality*

Children were asked to assess their perceptions of various qualitative aspects of their previously identified friendship dyad using the Friendship Quality Questionnaire-Revised (FQQ-R; Parker & Asher, 1993). This questionnaire consists of 40 primary items and one practice item. For each item, children indicated on a 1 (*not at all true*) to 5 (*really true*) scale the extent to which a particular quality was characteristic of their relationship with a specific friend (e.g., "\_\_\_\_\_ makes me feel good about my ideas.", "\_\_\_\_\_ and I always tell each other about our problems."). Each child completed a customized FQQ-R questionnaire regarding a particular friend, whose name was inserted into each individual item using word processing software (see Appendix H). According to Parker and Asher (1993), this method is used to reduce the likelihood that children will

complete the questionnaire based on an ideal friendship or mental representation of a combination of many different friendships. Research on the factor structure of the FQQ-R indicates that this measure is comprised of six separate factors (Parker & Asher, 1993). Based on this factor structure, there are six subscales (i.e., validation and caring, conflict resolution, conflict and betrayal, help and guidance, companionship and recreation, intimate exchange). In the present study, there was an average intercorrelation of .58 ( $p < .01$ ) among the friendship quality subscales at Time 1 and an average intercorrelation of .53 ( $p < .01$ ) among these subscales at Time 2. Rather than considering the individual subscales, an average score across the 40 friendship quality items was calculated. This score was used in all of the statistical analyses that were conducted for the present study. Parker and Asher (1993) have reported acceptable to high internal consistency for the subscales of this measure, with coefficient alphas ranging from .73 to .90. In the present study, this measure had high internal consistency at both Time 1 (coefficient  $\alpha = .96$ ) and Time 2 (coefficient  $\alpha = .95$ ), and test-retest reliability of .38 ( $p < .01$ ).

### *Social Situations*

To assess children's attributions and goals in social situations, children were presented with five hypothetical stories describing socially challenging situations (e.g., "Imagine that you are at school. During gym class, you go outside and try to join in a kickball game with another group of girls/boys. They tell you that you can't play."). These hypothetical situations have been adapted from those used in previous research projects investigating children's social-cognitive processes, which have revealed large individual differences in how children interpret and respond to these scenarios (Dodge et



al., 1985; Renshaw & Asher, 1983). In addition, the exact hypothetical situations used in the present study were pilot tested in a previous study that examined children's adjustment across the transition to middle school (Newman et al., 2000; see Appendix I).

Following each of the five stories, questions assessing children's attributions and social goals were presented. First, participants were asked why they thought the situation had occurred. More specifically, the children rated the extent to which they endorsed each of four attributions on a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*very much*). The attributions included the following: internal-unstable (i.e., "Did I not try hard enough?"), internal-stable (i.e., "Am I a likeable person?"), external-unstable ("Are they just in a bad mood?"), and external-stable ("Are the group of girls/boys and I just too different from each other?"). The children were also asked to choose one attribution, by filling in the blank following the presentation of all of the choices, that they would *most likely* have made if this situation had actually occurred. Children's responses were summed across the five situations to examine their overall attributional style. Excellent reliability has been found for each of the attribution questions listed above, with an average coefficient alpha of .93 (Newman et al., 2000). In the present study, the average internal consistency for the attribution statements was .86 at Time 1 and .88 at Time 1. Test-retest reliability for the attribution statements ranged from .36 to .49 ( $p < .01$ ).

Second, the participants were asked to rate whether they would be trying to accomplish each of six goals in the situation on a 5-point Likert scale ranging from 1 (*really disagree*) to 5 (*really agree*). These goals included one of each of the following: relationship maintenance (i.e., "I would be trying to still get along with the other girls/boys."), social avoidance (i.e., "I would be trying to stay away from the other

girls/boys.”), retaliation (i.e., “I would be trying to make the other girls/boys feel bad.”), performance (i.e., “I would be trying to make myself look more popular.”), and learning (i.e., “I would be trying to figure out how to join in next time.”). The children were then asked to choose the one goal that they would *most likely* be trying to pursue if the situation had actually occurred, by filling in the blank following the presentation of all of the choices. Again, children’s responses were summed across the five situations. Newman et al. (2000) reported excellent internal consistency for each of these goal statements across the five hypothetical situations, with an average coefficient alpha of .94. In the present study, the goal statements had an average reliability of .86 at Time 1 and .89 at Time 2, and test-retest reliability across the six-month transition interval ranged from .42 to .58 ( $p < .01$ ).

### *Self-Concept*

Children’s self-esteem was assessed with the 36-item Self-Perception Profile for Children (SPPC; Harter, 1985). For this measure, children responded to statements regarding their self-perceptions across multiple domains (i.e., academic, social, athletic, appearance, behavior, general self-worth/esteem). Children were first asked to choose one statement from a pair of statements that was true of them (e.g., “Some kids find it *hard* to make friends BUT Other kids find it’s pretty *easy* to make friends.”). Once children made this decision, they indicated whether the particular statement they chose was “sort of true” or “really true” by marking the appropriate box (see Appendix J). Each item was scored from 1 (low perceived competence) to 4 (high perceived competence). Scores were summed and averaged to produce a mean score for each of the six subscales.

The SPPC has firmly established psychometric properties and is widely used to evaluate self-esteem in third- through sixth-grade children. One particular study that used a sample of over 200 fifth- and sixth-grade children reported adequate one-week test-retest correlations ranging from .72 to .86 across the six subscales (Hymel, LeMare, Ditner, & Woody, 1999). Similarly, internal consistency, as measured by Cronbach's alpha, has been reported to range from .78 to .82 (Hymel et al., 1999). Research on the factor structure of an earlier version of this measure indicates that third- to sixth-grade children make meaningful distinctions among the academic, social, athletic, and general self-worth domains (Harter, 1982). According to Harter (1985), the response format of the SPPC, which allows four choices for each item, decreases children's propensity to provide socially desirable responses. In the present study, there was an average intercorrelation of .37 ( $p < .01$ ) among the six subscales at both Time 1 and Time 2. Rather than considering each of the individual subscales, only the general self-worth domain was used in the statistical analyses for the present study. This domain had a six-month test-retest reliability of .54 ( $p < .01$ ), and internal consistency of .82 at Time 1 and .84 at Time 2.

#### *Academic Achievement*

At both Time 1 (spring of fifth grade) and Time 2 (fall of sixth grade), participants' grades were obtained from student files. At Time 1, end-of-year report card grades for four different subject areas (i.e., English, science, social studies, and mathematics) were quantified (A=4, B=3, C=2, D=1, F=0) and averaged to produce an average academic achievement score for the fifth grade year, with higher scores indicating higher academic achievement. The same procedure was used at Time 2,

however, only the report card grades for the first half of the school year were utilized. The above procedure for assessing academic achievement has been used extensively by researchers who examine academic achievement with late elementary and middle school populations (e.g., McDougall & Hymel, 1998; Wentzel, 1998). Test-retest reliability for academic achievement was .67 ( $p < .01$ ) from Time 1 to Time 2 in the present study. Information on academic achievement was unavailable for 51 participants at Time 1 (14% of the sample) because school officials at one elementary school did not allow the researchers to access this information. Academic achievement information was gathered on all but six participants at Time 2 (1.6% of the sample) due to individual records being unavailable when the researchers went to the schools to gather this information.

#### *Absenteeism*

Information regarding participants' absences from school was also obtained from student files. Absenteeism at Time 1 was recorded as the number of days absent from school across the fifth-grade school year. At Time 2, the number of days absent across the first half of the sixth grade school year was recorded. Absentee data were adjusted by dividing each participant's number of days absent in fifth grade by the total number of days in the fifth grade school year (for Time 1) and number of days absent in the first half of sixth grade by the total number of days in the first half of the sixth grade school year (for Time 2). As such, each participant received scores that represented the percentage of days absent at both Time 1 and Time 2. There was a correlation of .38 ( $p < .01$ ) between the Time 1 and Time 2 absentee data in the present study. Similar to the academic achievement information, absentee data were unavailable for 52 participants at Time 1 (14.2% of the sample) and five participants at Time 2 (1.4% of the sample). In previous

research, absenteeism has been used as a measure of school avoidance, or more generally, as another dimension of school adjustment (DeRosier et al., 1994; Ollendick et al., 1992). In addition, increased absenteeism has been associated with various negative outcomes such as rejection by the peer group and feelings of loneliness (Kupersmidt & Coie, 1990).

## CHAPTER 3: RESULTS

### *Overview*

Correlational analyses were utilized to examine the relationships among the peer variables (i.e., peer acceptance, friendship, friendship quality), between the peer and adjustment variables (i.e., loneliness, depression, school involvement, self-esteem, academic achievement, school avoidance), between the peer and social-cognitive variables (i.e., goals, attributions), and between the social-cognitive and adjustment variables. To investigate change across the transition, several repeated-measures multivariate analyses of variance (MANOVAs) were conducted. These analyses compare students' mean scores on the friendship and adjustment variables from the spring of fifth grade (Time 1) to the fall of sixth grade (Time 2). Repeated measures MANOVAs were also conducted to examine potential changes in children's endorsement of the social goals across time. In addition to mean changes, individual stability across time was investigated by calculating correlations between Time 1 and Time 2 scores on the same measures. Next, stepwise regression analyses were used to assess the relative contributions of the peer variables to adjustment, both concurrently and across time. Regression analyses were also conducted to examine whether the social-cognitive variables added to the prediction of adjustment across the transition. Finally, repeated-measures MANOVAs were utilized to examine potential differences between low-accepted and high-accepted children on the peer and adjustment variables at Time 1 and Time 2, and to determine whether these two groups evidenced differential patterns of adjustment across the transition.

### *Relationships among Variables*

#### *Correlations among the Peer Variables*

At both Time 1 and Time 2, there were positive correlations among the peer relationship variables for both boys and girls (see Tables 1 and 2). However, the specific pattern of these correlations varied somewhat by gender. At Time 1, there were significant correlations among the following variables for boys: peer acceptance and number of friendships, peer acceptance and friendship quality, and number of friendships and friendship quality. At Time 2 for boys, peer acceptance correlated significantly with number of mutual friends, but the correlations of friendship quality with peer acceptance and number of friends were not significant. For girls, at both Time 1 and Time 2, peer acceptance correlated significantly with number of friendships, but the correlations between number of friendships and friendship quality were not significant. For girls, there was also a significant correlation between peer acceptance and friendship quality at Time 2 only.

#### *Correlations between the Peer and Adjustment Variables*

An examination of the correlations between the peer and adjustment variables also yielded interesting results (see Tables 1 and 2). For boys, peer acceptance was negatively correlated with loneliness and depression, and positively correlated with school involvement, self-esteem, and academic achievement at both Time 1 and Time 2. Number of friends was negatively correlated with loneliness and depression and positively correlated with academic achievement at both Time 1 and Time 2. Number of friends was positively correlated with self-esteem for boys at Time 1. Friendship quality was negatively correlated with loneliness (at Time 1 and Time 2) and depression (at

Table 1

*Correlations among Dimensions of Early Adolescents' Peer Relationships and Adjustment at Time 1*

Variable	1	2	3	4	5	6	7	8	9
1. Acceptance	----	.56**	.19*	-.44**	-.25**	.21**	.36**	.34**	-.15
2. # of Friends	.48**	----	.25**	-.43**	-.18*	.08	.20**	.17*	-.12
3. Fr. Quality	.15	.07	----	-.19*	-.19*	.26**	.16*	.15	-.01
4. Loneliness	-.39**	-.39**	-.08	----	.52**	-.26*	-.43**	-.13	.08
5. Depression	-.14	-.10	-.06	.63**	----	-.59**	-.62**	-.18*	.04
6. Sch. Involvement	.18*	.15*	.01	-.31**	-.48**	----	.49**	.26**	.02
7. Self-Esteem	.18*	.13	.04	-.43**	-.56**	.37**	----	.19*	-.01
8. Achieve.	.24**	.25**	-.05	.21**	-.18*	.26**	.20*	----	-.30**
9. Sch. Avoid.	.01	.12	-.07	-.02	-.04	-.12	-.07	-.16*	----

*Note:* Values above the diagonal are for boys ( $n = 175$ ), and values below the diagonal are for girls ( $n = 190$ ).

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$



Table 2

*Correlations among Dimensions of Early Adolescents' Peer Relationships and Adjustment at Time 2*

Variable	1	2	3	4	5	6	7	8	9
1. Acceptance	----	.46**	.05	-.38**	-.16*	.19*	.20*	.47**	-.08
2. # of Friends	.56**	----	-.05	-.29**	-.11	.11	.15	.24**	-.09
3. Fr. Quality	.17*	.06	----	-.19*	-.15	.22**	.17*	.14	.06
4. Loneliness	-.37**	-.25**	-.25**	----	.60**	-.33*	-.46**	-.21**	.21**
5. Depression	-.19**	-.04	-.21**	.55**	----	-.60**	-.49**	-.19*	.12
6. Sch. Involvement	.08	.05	.25**	-.24**	-.55**	----	.36**	.31**	-.05
7. Self-Esteem	.09	.00	.20**	-.37**	-.63**	.38**	----	.20*	-.08
8. Achieve.	.42**	.16**	.17*	-.24**	-.32**	.31**	.20*	----	-.21**
9. Sch. Avoid.	-.04	-.06	-.16*	.09	.19*	-.21**	-.29**	-.21**	----

*Note:* Values above the diagonal are for boys ( $n = 175$ ), and values below the diagonal are for girls ( $n = 190$ ).

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

Time 1) and positively correlated with school involvement and self-esteem (at Time 1 and Time 2).

For girls, peer acceptance was negatively correlated with loneliness (at Time 1 and Time 2) and depression (at Time 2), and positively correlated with school involvement (at Time 1), self-esteem (at Time 1), and academic achievement (at Time 1 and Time 2). Number of friends was negatively correlated with loneliness and positively correlated with academic achievement at both Time 1 and Time 2. In addition, number of friends was positively correlated with school involvement for girls at Time 1. At Time 2 for girls, friendship quality was also negatively correlated with loneliness, depression and school avoidance, and positively correlated with school involvement, self-esteem, and academic achievement.

#### *Correlations between the Social Cognitive and Peer Variables*

At both Time 1 and Time 2, there were significant correlations between the social goal and peer variables for both boys and girls (see Tables 3 and 4). At Time 1 for boys, performance goals correlated negatively with peer acceptance, and learning goals correlated positively with both number of friends and friendship quality. At Time 2 for boys, avoidance goals correlated negatively with number of friends and performance goals correlated negatively with friendship quality. For girls, there were no significant correlations between the social goal and peer variables at Time 1. Relationship maintenance goals correlated positively with friendship quality for girls at Time 2. In examining correlations between the attributions and peer variables, internal stable and external stable attributions correlated negatively with peer acceptance at Time 1 for girls, and internal situational and internal stable attributions correlated negatively with peer

Table 3

*Correlations among Dimensions of Early Adolescents' Peer Relationships and the Social Goals at Time 1*

Variable	1	2	3	4	5	6	7	8
1. Acceptance	----	.56**	.19*	.09	-.10	.01	-.23**	.09
2. # of Friends	.48**	----	.25**	.09	-.02	-.05	.04	.19*
3. Fr. Quality	.15	.07	----	.14	-.14	.07	-.14	.16*
4. Rel. Maintenance	.09	.03	.07	----	-.06	-.28**	.16*	.55**
5. Retaliation	-.10	.03	-.11	-.12	----	.03	.39**	-.01
6. Avoidance	-.03	-.05	-.15	-.51**	.14	----	-.08	-.16*
7. Performance	-.05	.11	-.01	.05	.31**	-.03	----	.31**
8. Learning	.04	.06	.14	.58**	-.07	-.38**	.11	----

*Note:* Values above the diagonal are for boys ( $n = 175$ ), and values below the diagonal are for girls ( $n = 190$ ).  
 \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

Table 4

*Correlations among Dimensions of Early Adolescents' Peer Relationships and the Social Goals at Time 2*

Variable	1	2	3	4	5	6	7	8
1. Acceptance	----	.46**	.05	.09	-.05	-.04	.05	.14
2. # of Friends	.56**	----	-.05	.11	.06	-.16*	.14	.05
3. Fr. Quality	.17*	.06	----	.00	-.12	.04	-.21**	-.01
4. Rel. Maintenance	-.01	-.02	.26**	----	.06	-.12	.24**	.54**
5. Retaliation	-.09	.08	-.08	-.05	----	.10	.30**	-.07
6. Avoidance	-.03	-.03	.05	-.35**	.07	----	.10	.05
7. Performance	.04	.15*	-.09	.03	.39**	.02	----	.35**
8. Learning	-.05	-.05	.17*	.58**	-.06	-.31**	.18*	----

*Note:* Values above the diagonal are for boys ( $n = 175$ ), and values below the diagonal are for girls ( $n = 190$ ).

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

acceptance for girls at Time 2. Generally, however, the attributions did not correlate significantly with the peer variables (see Tables 5 and 6).

*Correlations between the Social Cognitive and Adjustment Variables*

At both Time 1 and Time 2, there were significant correlations between the social goal and adjustment variables for both boys and girls (see Tables 7 and 8). More specifically, for boys, relationship maintenance goals correlated negatively with depression, and positively with school involvement and self-esteem at Time 1. Relationship maintenance goals correlated negatively with loneliness and positively with school involvement for boys at Time 2. Also for boys at both Time 1 and Time 2, retaliation goals correlated positively with depression, and negatively with school involvement, self-esteem, and academic achievement ( $r = -.30, p < .01$  at Time 1,  $r = -.16, p < .05$  at Time 2). Avoidance goals correlated negatively with self-esteem at Time 1 and positively with loneliness at Time 2 for boys. Performance goals correlated positively with depression, and negatively with school involvement, self-esteem, and academic achievement ( $r = -.19, p < .05$ ) at Time 1 for boys. Performance goals also correlated negatively with self-esteem for boys at Time 2. Finally, learning goals correlated positively with academic achievement ( $r = .17, p < .05$ ) for boys at Time 2 only.

For girls, relationship maintenance goals correlated negatively with loneliness and depression, and positively with school involvement at both Time 1 and Time 2. Retaliation goals were positively correlated with loneliness and depression, and negatively correlated with school involvement and self-esteem for girls at both Time 1

Table 5  
*Correlations among Dimensions of Early Adolescents' Peer Relationships and the Attributions at Time 1*

Variable	1	2	3	4	5	6	7
1. Acceptance	----	.56**	.19*	-.07	-.04	.04	-.08
2. # of Friends	.48**	----	.25**	-.06	-.04	.06	-.02
3. Fr. Quality	.15	.07	----	.07	-.01	.09	.00
4. Int./situational	-.07	.04	.12	----	.33**	.07	.20**
5. Int./stable	-.18*	-.14	-.10	.29**	----	.20**	.17**
6. Ext./situational	.13	.12	.08	.13	.00	----	.13
7. Ext./stable	-.18*	-.10	-.04	.21**	.14	.05	----

*Note:* Values above the diagonal are for boys ( $n = 175$ ), and values below the diagonal are for girls ( $n = 190$ ).  
 \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

Table 6

*Correlations among Dimensions of Early Adolescents' Peer Relationships and the Attributions at Time 2*

Variable	1	2	3	4	5	6	7
1. Acceptance	----	.46**	.05	.02	.00	.00	-.07
2. # of Friends	.56**	----	-.05	-.07	-.04	.01	-.31
3. Fr. Quality	.17*	.06	----	.05	-.09	.03	.07
4. Int./situational	-.19**	-.11	.00	----	.51**	.37**	.28**
5. Int./stable	-.18*	-.03	-.10	.48**	----	.26**	.19*
6. Ext./situational	-.03	.02	.07	.07	-.04	----	.07
7. Ext./stable	-.11	-.01	.02	.15*	.17*	.00	----

*Note:* Values above the diagonal are for boys ( $n = 175$ ), and values below the diagonal are for girls ( $n = 190$ ).

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

Table 7

*Correlations among the Social Goal and Adjustment Variables at Time 1*

Variable	1	2	3	4	5	6	7	8	9
1. Rel. Maintenance	----	-.06	-.28**	.16*	.55**	-.09	-.26**	.30**	.26**
2. Retaliation	-.12	----	.03	.39**	-.01	-.03	.16*	-.31**	-.19*
3. Avoidance	-.51**	.14	----	-.08	-.16*	.04	.09	-.05	-.21**
4. Performance	.05	.31**	-.03	----	.31**	.03	.15*	-.29**	-.23**
5. Learning	.58**	-.07	-.38**	.11	----	-.02	-.11	.14	.14
6. Loneliness	-.18*	.23**	.14	.05	-.07	----	.52**	-.26**	-.43**
7. Depression	-.17*	.31**	.13	.13	-.05	.63**	----	-.59**	-.62**
8. Sch. Involvement	.26**	-.22**	-.06	-.18*	.25**	-.31**	-.48**	----	.49**
9. Self-Esteem	.01	-.16*	-.06	-.21**	-.03	-.43**	-.56**	.37**	----

*Note:* Values above the diagonal are for boys ( $n = 175$ ), and values below the diagonal are for girls ( $n = 190$ ).\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$



Table 8

*Correlations among the Social Goal and Adjustment Variables at Time 2*

Variable	1	2	3	4	5	6	7	8	9
1. Rel. Maintenance	----	.06	-.12	.24**	.54**	-.19*	-.12	.16*	.04
2. Retaliation	-.05	----	.10	.30**	-.07	.02	.22**	-.31**	-.18*
3. Avoidance	-.35**	.07	----	.10	.05	.21**	.11	.03	-.11
4. Performance	.03	.39**	.02	----	.35**	.04	.07	-.08	-.22**
5. Learning	.58**	-.06	-.31**	.18*	----	-.09	-.10	.12	.06
6. Loneliness	-.22**	.22**	.03	.06	-.14	----	.60**	-.33**	-.46**
7. Depression	-.21**	.42**	.01	.19**	-.18*	.55**	----	-.60**	-.49**
8. Sch. Involvement	.22**	-.38**	.00	-.22**	.22**	-.24**	-.55**	----	.36**
9. Self-Esteem	.11	-.26**	.01	-.27**	-.01	-.37**	-.63**	.38**	----

*Note:* Values above the diagonal are for boys ( $n = 175$ ), and values below the diagonal are for girls ( $n = 190$ ).\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

and Time 2. Retaliation goals also correlated negatively with academic achievement for girls at Time 2 ( $r = -.15, p < .05$ ). Performance goals correlated negatively with school involvement and self-esteem at Time 1 and Time 2 for girls. At Time 2 for girls performance goals correlated positively with depression and school avoidance ( $r = .16, p < .05$ ). Learning goals correlated positively with school involvement for girls at Time 1 and Time 2, and negatively with depression at Time 2. Notably, avoidance goals did not correlate significantly with any of the adjustment variables for girls.

Overall, there were very few significant associations between the attribution and adjustment variables at Time 1 and Time 2, particularly for boys (see Tables 9 and 10). External stable attributions correlated negatively with school involvement for boys at Time 1 only. At Time 1 for girls, internal stable attributions correlated negatively with self-esteem, external situational attributions correlated positively with school involvement, and external stable attributions correlated positively with loneliness and depression. In addition, external stable attributions correlated negatively with self-esteem at both Time 1 and Time 2 for girls.

### *Examining Change across the Transition*

#### *Cross-Transition Stability*

To examine stability over time, correlations between Time 1 and Time 2 scores on the same measures were calculated (see Table 11). A significant correlation is an indication of stability, whereas a nonsignificant correlation demonstrates a lack of stability. For all of the adjustment variables, there was moderate to high stability across time. Next, Fischer's  $r$  to  $Z_r$  transformations were used to determine whether the stability coefficients for each adjustment variable differed significantly by gender. Results

Table 9

*Correlations among the Attribution and Adjustment Variables at Time 1*

Variable	1	2	3	4	5	6	7	8
1. Int./situational	----	.33**	.07	.20**	.03	-.03	.08	-.01
2. Int./stable	.29**	----	.20**	.17*	-.10	-.01	.03	.04
3. Ext./situational	.13	.00	----	.13	-.12	-.13	.02	.04
4. Ext./stable	.21**	.14	.05	----	.04	.04	-.18*	-.10
5. Loneliness	.07	.05	-.12	.19*	----	.52**	-.26**	-.43**
6. Depression	.07	.07	-.01	.17*	.63**	----	-.59**	-.62**
7. Sch. Involvement	.04	.00	.16*	-.10	-.31**	-.48**	----	.49**
8. Self-Esteem	-.13	-.20**	.00	-.24**	-.43**	-.56**	.37**	----

*Note:* Values above the diagonal are for boys ( $n = 175$ ), and values below the diagonal are for girls ( $n = 190$ ).

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

Table 10

*Correlations among the Attribution and Adjustment Variables at Time 2*

Variable	1	2	3	4	5	6	7	8
1. Int./situational	----	.51**	.37**	.28**	.00	-.04	.06	-.04
2. Int./stable	.48**	----	.26**	.19*	-.10	-.12	.06	.02
3. Ext./situational	.07	-.04	----	.07	-.10	-.11	.14	.14
4. Ext./stable	.15*	.17*	.00	----	.06	.12	-.01	-.05
5. Loneliness	.00	-.05	-.05	.12	----	.52**	-.26**	-.43**
6. Depression	-.02	-.03	.03	.13	.63**	----	-.59**	-.62**
7. Sch. Involvement	-.01	-.02	.05	-.09	-.31**	-.48**	----	.49**
8. Self-Esteem	-.02	-.04	-.07	-.15*	-.43**	-.56**	.37**	----

*Note:* Values above the diagonal are for boys ( $n = 175$ ), and values below the diagonal are for girls ( $n = 190$ ).

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

Table 11

*Stability Coefficients for the Peer and Adjustment Variables by Gender and a Comparison of the Correlations Based on Fischer's  $r$  to  $Z_r$  Transformations*

Variable	Boys	Girls	$r$ - $Z_r$
1. Acceptance	.57**	.59**	-.2840
2. # of Friends	.38**	.48**	-1.16
3. Fr. Quality	.41**	.28**	1.40
4. Loneliness	.69**	.60**	1.47
5. Depression	.52**	.65**	-1.87
6. School Involvement	.65**	.66**	-1.70
7. Self-Esteem	.45**	.62**	-2.27*
8. Achievement	.64**	.70**	-1.03
9. School Avoidance	.40**	.41**	-.114

\* $p < .05$ ; \*\* $p < .01$ .

indicated that self-esteem was significantly less stable across time for boys. The stability coefficients for the other adjustment variables did not differ significantly by gender (see Table 11).

#### *Peer and Adjustment Variables*

To examine mean changes in the peer and adjustment variables over time, several repeated measures MANOVAs were conducted. In each of these analyses, gender was the between-subject factor and time was the within-subject factor. In the first MANOVA, the peer variables (i.e., acceptance, number of friends, friendship quality) were entered as dependent variables. Results of this MANOVA revealed significant effects for time and gender (see Table 12). Follow-up univariate analyses for the time effect indicated that peer acceptance declined significantly across the transition for both boys and girls,  $F(1, 324) = 25.70, p < .001, \eta^2 = .073$ . Conversely, the average number of mutual friendships increased significantly across the transition for boys and girls,  $F(1, 324) = 5.76, p < .01, \eta^2 = .017$ . The friendship quality variable did not change significantly across time. Follow-up univariate analyses for the gender effect revealed that girls had significantly higher friendship quality than boys at both Time 1 and Time 2,  $F(1, 324) = 30.61, p < .001, \eta^2 = .073$ .

In the second time by gender MANOVA, the psychological adjustment variables (i.e., loneliness, depression, self-esteem) were entered as dependent variables. Results of this MANOVA produced a significant effect for time (see Table 12). Follow-up univariate analyses indicated that loneliness decreased significantly across the transition,  $F(1, 338) = 8.72, p < .01, \eta^2 = .025$ . Depression scores also declined significantly across

Table 12

*MANOVA Results for the Peer and Adjustment Variables by Time and Gender*

Variable	Means				F-Values		
	<u>Time 1</u>		<u>Time 2</u>		Time	Gender	Interac.
	Boys	Girls	Boys	Girls			
Peer Variables					14.68***	10.57***	1.96
Acceptance	2.87	2.91	2.71	2.72			
# of Friendships	3.99	4.06	4.09	4.64			
Friendship Quality	3.54	3.85	3.49	3.91			
Psych. Adjust. Variables					4.57**	2.07	1.22
Loneliness	1.82	1.72	1.77	1.61			
Depression	7.10	6.67	6.49	5.22			
Self-Esteem	3.42	3.37	3.43	3.48			
School Adjust. Variables					5.70**	2.53	1.70
School Involvement	3.31	3.48	3.22	3.45			
Academic Achieve.	3.17	3.21	3.07	3.19			
School Avoidance	.040	.044	.037	.033			

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

time,  $F(1, 338) = 9.58, p < .01, \eta^2 = .028$ . Self-esteem increased from Time 1 to Time 2,  $F(1, 338) = 3.94, p < .05, \eta^2 = .012$ .

The third MANOVA examined changes in the school adjustment variables (i.e., school involvement, academic achievement, school avoidance) by gender and across time. This analysis revealed a significant time effect (see Table 12). Follow-up univariate analyses indicated that academic achievement declined across the transition,  $F(1, 298) = 4.60, p < .05, \eta^2 = .015$ , whereas school avoidance (i.e., proportion of days absent from school) decreased,  $F(1, 298) = 7.85, p < .01, \eta^2 = .026$ . School involvement did not change significantly across the transition.

#### *Social Goal Variables*

A repeated measures MANOVA was also conducted to examine mean changes in children's endorsement of the social goals across time. For this analysis, gender was the between-subject factor and time was the within subject factor. The five social goal variables (i.e., relationship maintenance, retaliation, avoidance, performance, learning) were entered as dependent variables. Results of this MANOVA revealed significant effects for time and gender (see Table 13). Follow-up univariate analyses for the time effect indicated that endorsement of avoidance goals ( $F(1, 335) = 5.85, p < .05, \eta^2 = .017$ ) and learning goals ( $F(1, 335) = 3.50, p < .05, \eta^2 = .014$ ) declined significantly across the transition for both boys and girls. Endorsement of relationship maintenance, retaliation, and performance goals did not change significantly across the transition. Follow-up univariate analyses for the gender effect revealed that girls had significantly higher mean scores for avoidance goals than boys at both Time 1 and Time 2,



Table 13

*MANOVA Results for the Social Goal Variables by Time and Gender*

Variable	Means				F-Values		
	<u>Time 1</u>		<u>Time 2</u>		Time	Gender	Interac.
	Boys	Girls	Boys	Girls			
Social Goal Variables					2.86***	5.85*	1.02
Rel. Maintenance	3.00	2.97	2.89	2.96			
Retaliation	2.17	2.05	2.17	2.10			
Avoidance	2.30	2.79	2.15	2.61			
Performance	1.93	2.00	2.01	2.05			
Learning	2.87	2.67	2.59	2.66			

---

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

$F(1, 335) = 21.94, p < .001, \eta^2 = .061$ . Results of a paired samples t-test revealed that, across the entire sample, the mean score for learning goals was significantly higher than the mean score for performance goals at both Time 1 ( $t(354) = 10.20, p < .001$ ) and Time 2 ( $t(345) = 7.23, p < .001$ ).

### *Predicting Adjustment*

#### *Peer Variables as Predictors*

Stepwise regression analyses were used to assess the relative, independent contributions of peer acceptance, number of friends, and friendship quality to early adolescents' adjustment (i.e., loneliness, depression, school involvement, self-esteem, academic achievement, school avoidance) during the spring of fifth grade (Time 1), during the fall of sixth grade (Time 2), and across the transition.

All of the regression models predicting loneliness, both concurrently and across time, were significant (see Table 14). At Time 1, loneliness was uniquely predicted by peer acceptance and number of friends for both boys and girls. At Time 2, loneliness was uniquely predicted by peer acceptance, number of friends, and friendship quality for boys, and by peer acceptance and friendship quality for girls. In predicting adjustment *across the transition*, loneliness at Time 2 was significantly predicted by Time 1 peer acceptance and number of friends for boys, and by Time 1 number of friends for girls.

In comparison to the prediction of loneliness, the peer variables did not account for as much of the variance in the prediction of depression. In addition, several of the regression models predicting depression were not significant (see Table 15). Depression was uniquely predicted by peer acceptance and friendship quality for boys at Time 1.

Table 14

*Regressions of Loneliness on the Dimensions of Early Adolescents' Peer Relationships for Boys and Girls*

Loneliness	Acceptance	# of Friends	Fr. Qual.	R <sup>2</sup>
<i>At Time 1</i>				
Boys	-.295***	-.266**	-.067	.245***
Girls	-.260**	-.266***	-.016	.205***
<i>At Time 2</i>				
Boys	-.293***	-.162*	-.166*	.186***
Girls	-.335***	-.068	-.185*	.167***
<i>Across the Transition</i>				
Boys	-.189*	-.231*	-.102	.138***
Girls	-.138	-.249**	-.095	.062**

*Note:* Standardized beta weights are reported.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

Table 15

*Regressions of Depression on the Dimensions of Early Adolescents' Peer Relationships for Boys and Girls*

Depression	Acceptance	# of Friends	Fr. Qual.	R <sup>2</sup>
<i>At Time 1</i>				
Boys	-.224**	-.032	-.146*	.083**
Girls	-----	-----	-----	n.s.
<i>At Time 2</i>				
Boys	-.153*	-.044	-.139	.023*
Girls	-.159*	.077	-.178*	.066**
<i>Across the Transition</i>				
Boys	-----	-----	-----	n.s.
Girls	-----	-----	-----	n.s.

*Note:* Standardized beta weights are reported.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

The regression model predicting depression at Time 1 for girls was not significant. At Time 2, depression was uniquely predicted by peer acceptance for boys, and by peer acceptance and friendship quality for girls. The regression models predicting Time 2 depression from the Time 1 peer variables were not significant for boys or girls.

All of the regression models predicting school involvement were significant (see Table 16). At Time 1, school involvement was uniquely predicted by peer acceptance and friendship quality for boys, and by peer acceptance for girls. At Time 2, school involvement was uniquely predicted by peer acceptance and friendship quality for boys, and by friendship quality for girls. School involvement at Time 2 was significantly predicted by Time 1 peer acceptance for both boys and girls.

In examining the peer variables as predictors of self-esteem, all of the regression models were significant (see Table 17). Self-esteem was uniquely predicted by peer acceptance for both boys and girls at Time 1. At Time 2, self-esteem was uniquely predicted by peer acceptance and friendship quality for boys, and by friendship quality for girls. Self-esteem at Time 2 was significantly predicted by Time 1 peer acceptance for boys and by Time 1 number of friends and friendship quality for girls.

Finally, the regression models predicting academic achievement and school avoidance were all significant. Academic achievement was uniquely predicted by peer acceptance at Time 1, Time 2, and across the transition for both boys and girls (see Table 18). The regression models predicting school avoidance at Time 1 and at Time 2 were not significant. School avoidance at Time 2 was uniquely predicted by number of friends for boys and by friendship quality for girls (see Table 19).

Table 16

*Regressions of School Involvement on the Dimensions of Early Adolescents' Peer Relationships for Boys and Girls*

School Involvement	Acceptance	# of Friends	Fr. Qual.	R <sup>2</sup>
<i>At Time 1</i>				
Boys	.172*	-.102	.221**	.091***
Girls	.175*	.084	-.012	.031*
<i>At Time 2</i>				
Boys	.180*	.049	.204**	.078**
Girls	.040	.040	.239**	.057**
<i>Across the Transition</i>				
Boys	.154*	.020	.127	.024*
Girls	.172*	.039	.007	.030*

*Note:* Standardized beta weights are reported.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

Table 17

*Regressions of Self-Esteem on the Dimensions of Early Adolescents' Peer Relationships for Boys and Girls*

Self-Esteem	Acceptance	# of Friends	Fr. Qual.	R <sup>2</sup>
<i>At Time 1</i>				
Boys	.352***	.013	.091	.124***
Girls	.174*	.058	.018	.030*
<i>At Time 2</i>				
Boys	.189*	.080	.151*	.061**
Girls	.054	-.013	.197**	.039**
<i>Across the Transition</i>				
Boys	.187*	.007	.101	.035*
Girls	.024	.142*	.146*	.044*

*Note:* Standardized beta weights are reported.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

Table 18

*Regressions of Academic Achievement on the Dimensions of Early Adolescents' Peer Relationships for Boys and Girls*

Achievement	Acceptance	# of Friends	Fr. Qual.	R <sup>2</sup>
<i>At Time 1</i>				
Boys	.321***	-.024	.082	.103***
Girls	.219**	.135	-.069	.048**
<i>At Time 2</i>				
Boys	.459***	.037	.101	.210***
Girls	.420***	-.105	.103	.176***
<i>Across the Transition</i>				
Boys	.407***	.084	.096	.165***
Girls	.413***	.057	.005	.171***

*Note:* Standardized beta weights are reported.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .



Table 19

*Regressions of School Avoidance on the Dimensions of Early Adolescents' Peer Relationships for Boys and Girls*

School Avoidance	Acceptance	# of Friends	Fr. Qual.	R <sup>2</sup>
<i>At Time 1</i>				
Boys	-----	-----	-----	n.s.
Girls	-----	-----	-----	n.s.
<i>At Time 2</i>				
Boys	-----	-----	-----	n.s.
Girls	-----	-----	-----	n.s.
<i>Across the Transition</i>				
Boys	-.023	-.169*	.079	.028*
Girls	-.062	-.058	-.179*	.032*

*Note:* Standardized beta weights are reported.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

### *Time 1 Peer and Adjustment Variables as Predictors of Time 2 Adjustment*

A series of hierarchical regression analyses were conducted to examine whether the Time 1 peer variables predict adjustment at Time 2, above and beyond the Time 1 adjustment variables. For each of these analyses, the Time 1 adjustment variable was entered in the first block of predictors and the peer variables were entered in the second block. For both boys and girls, the peer variables added significantly to the prediction of only the Time 2 adjustment variable of academic achievement (see Table 20). Peer acceptance emerged as a unique predictor of academic achievement for boys ( $\beta = .184$ ,  $p < .05$ ) and for girls ( $\beta = .287$ ,  $p < .001$ ).

### *Adding the Social Goal Variables as Predictors*

Hierarchical multiple regression analyses were also utilized to examine whether the Time 1 social goal variables (i.e., relationship maintenance, retaliation, avoidance, performance, learning) add to the prediction of each of the Time 2 adjustment variables, above and beyond the Time 1 peer variables (i.e., peer acceptance, friendship, friendship quality). For each of these analyses, the peer variables were entered in the first block of predictors and the social goals were entered in the second block (see Table 21 for a summary of these analyses). The social goals did not add significantly to the prediction of loneliness, academic achievement, or school avoidance for boys or girls. The social goals also did not add to the prediction of depression for boys. However, the goals significantly added to the prediction of depression for girls, with retaliation goals emerging as a unique predictor ( $\beta = .248$ ,  $p < .01$ ). For both boys and girls, the goals added significantly to the prediction of school involvement. Retaliation goals emerged as unique predictors of school involvement for both boys ( $\beta = -.218$ ,  $p < .01$ ) and girls

Table 20

*R<sup>2</sup> change Statistics Examining Whether Time 1 Peer Variables Add to the Prediction of Time 2 Adjustment Beyond the Time 1 Adjustment Variables*

Time 2 Adjustment Variable	R <sup>2</sup> change	Degrees of freedom	F change
<i>Loneliness</i>			
Boys	.005	(3, 170)	.580
Girls	.006	(3, 185)	.545
<i>Depression</i>			
Boys	.003	(3, 170)	.258
Girls	.005	(3, 185)	.540
<i>School Involvement</i>			
Boys	.003	(3, 170)	.312
Girls	.004	(3, 185)	.425
<i>Self-Esteem</i>			
Boys	.005	(3, 170)	.356
Girls	.024	(3, 185)	2.41
<i>Academic Achievement</i>			
Boys	.060	(3, 170)	5.80**
Girls	.079	(3, 185)	9.90***
<i>School Avoidance</i>			
Boys	.022	(3, 170)	1.46
Girls	.035	(3, 185)	2.47

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

Table 21

*R<sup>2</sup> change Statistics Examining Whether Time 1 Social Goals Add to the Prediction of Time 2 Adjustment Beyond the Time 1 Peer Variables*

Time 2 Adjustment Variable	R <sup>2</sup> change	Degrees of freedom	F change
<i>Loneliness</i>			
Boys	.018	(5, 166)	.716
Girls	.054	(5, 181)	2.26
<i>Depression</i>			
Boys	.058	(5, 166)	2.09
Girls	.084	(5, 181)	3.42**
<i>School Involvement</i>			
Boys	.124	(5, 166)	4.90***
Girls	.107	(5, 181)	4.48**
<i>Self-Esteem</i>			
Boys	.102	(5, 166)	3.99**
Girls	.046	(5, 181)	1.84
<i>Academic Achievement</i>			
Boys	.050	(5, 166)	2.15
Girls	.004	(5, 181)	.178
<i>School Avoidance</i>			
Boys	.031	(5, 166)	1.10
Girls	.053	(5, 181)	2.12

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

( $\beta = -.206, p < .01$ ). In addition, performance goals uniquely predicted school involvement for boys ( $\beta = -.179, p < .05$ ). For girls, the social goals did not add significantly to the prediction of self-esteem. However, for boys, the social goals added significantly to the prediction of self-esteem, with retaliation goals ( $\beta = -.182, p < .05$ ) and performance goals ( $\beta = -.205, p < .05$ ) emerging as unique predictors.

Based on these results, the social goal variables appear to offer little additional predictive power for loneliness, academic achievement, and school avoidance beyond that contributed by knowledge of the Time 1 peer variables. However, knowledge of social goals at Time 1 adds to the cross-transition prediction of depression for girls, school involvement for boys and girls, and self-esteem for boys.

#### *Adding the Attribution Variables as Predictors*

Based on a hierarchical regression procedure similar to that described above, results indicated that the Time 1 attribution variables (i.e., internal-situational, internal-stable, external-situational, external-stable) did not add to the prediction of any of the Time 2 adjustment variables, above and beyond the Time 1 peer variables (see Table 22).

#### *Comparisons by Peer Status*

A series of repeated-measures MANOVAs was conducted to examine potential differences between low-accepted and high-accepted children on the peer and adjustment variables at Time 1 and Time 2, and to determine whether these two groups evidenced differential patterns of adjustment across the transition. For these analyses, acceptance group (low, high) was the between-subject factor and time was the within-subject factor. The low acceptance group was defined as those participants that scored within the bottom 25 percent on the peer acceptance variable (acceptance scores  $\leq 2.30, n = 91$ ), and the

Table 22

*R<sup>2</sup> change Statistics Examining Whether Time 1 Attributions Add to the Prediction of Time 2 Adjustment Beyond the Time 1 Peer Variables*

Time 2 Adjustment Variable	R <sup>2</sup> change	Degrees of freedom	F change
<i>Loneliness</i>			
Boys	.030	(4, 167)	1.52
Girls	.032	(4, 182)	1.67
<i>Depression</i>			
Boys	.014	(4, 167)	.617
Girls	.022	(4, 182)	1.03
<i>School Involvement</i>			
Boys	.006	(4, 167)	.269
Girls	.016	(4, 182)	.784
<i>Self-Esteem</i>			
Boys	.045	(4, 167)	.087
Girls	.025	(4, 182)	.308
<i>Academic Achievement</i>			
Boys	.016	(4, 167)	.825
Girls	.023	(4, 182)	1.297
<i>School Avoidance</i>			
Boys	.053	(4, 167)	2.42
Girls	.030	(4, 182)	1.46

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

high acceptance group constituted participants that scored within the top 25 percent on the peer acceptance variable (acceptance scores  $\geq 3.29$ ,  $n = 91$ ). In the first MANOVA, two of the peer variables (i.e., number of friends, friendship quality) were entered as dependent variables. Results of this MANOVA revealed significant effects for time and acceptance group (see Table 23). Follow-up univariate analyses for the time effect indicated that number of friends increased significantly across the transition for both the low and high accepted groups,  $F(1, 153) = 8.134, p < .01, \eta^2 = .050$ . Follow-up univariate analyses for the acceptance group effect revealed that high accepted children had a significantly greater number of mutual friends than low accepted children at both Time 1 and Time 2,  $F(1, 153) = 70.86, p < .001, \eta^2 = .317$ .

In the second time by acceptance group MANOVA, the psychological adjustment variables (i.e., loneliness, depression, self-esteem) were entered as dependent variables. Results of this MANOVA produced a significant effect for time, acceptance group, and the time by acceptance group interaction (see Table 23). Follow-up univariate analyses indicated that, for both the low and high accepted groups, loneliness decreased significantly across the transition,  $F(1, 164) = 6.59, p < .05, \eta^2 = .039$ . Depression scores also declined significantly for both groups across time,  $F(1, 164) = 9.03, p < .01, \eta^2 = .052$ . Follow-up univariate analyses for the significant acceptance group effect revealed that at both Time 1 and Time 2, in comparison to high accepted children, low accepted children reported significantly higher levels of loneliness,  $F(1, 164) = 32.63, p < .001, \eta^2 = .166$ , significantly higher levels of depression,  $F(1, 164) = 5.50, p < .05, \eta^2 = .032$ , and significantly lower self-esteem,  $F(1, 164) = 14.39, p < .001, \eta^2 = .081$ .

Table 23

*MANOVA Results for Peer and Adjustment Variables by Time and Acceptance Group*

Variable	Means				F-Values		
	<u>Time 1</u>		<u>Time 2</u>		Time	Group	Interac.
	Low	High	Low	High			
Peer Variables					4.71*	35.22***	1.35
# of Friendships	2.57	4.77	3.06	5.56			
Friendship Quality	3.51	3.80	3.67	3.74			
Psych. Adjust. Variables					3.72*	14.45***	3.73*
Loneliness	2.16	1.54	1.92	1.55			
Depression	8.44	6.01	6.90	4.78			
Self-Esteem	3.12	3.52	3.25	3.47			
School Adjust. Variables					1.85	11.44***	1.63
School Involvement	3.31	3.55	3.25	3.49			
Academic Achieve.	2.89	3.36	2.72	3.36			
School Avoidance	.043	.038	.047	.035			

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .



Follow-up univariate tests for the time by acceptance group interaction showed that this interaction was significant only for the loneliness variable,  $F(1, 164) = 7.76, p < .01, \eta^2 = .045$ . One-way ANOVAs revealed that low-accepted children had significantly higher levels of loneliness than did high-accepted children at Time 1,  $F(1, 181) = 43.16, p < .001, \eta^2 = .193$ , and at Time 2,  $F(1, 178) = 17.11, p < .001, \eta^2 = .088$ . However, the mean loneliness score changed differentially for low- and high-accepted children across time. Specifically, from Time 1 to Time 2, there was a significant decrease in loneliness for low-accepted children,  $F(1, 89) = 13.66, p < .001, \eta^2 = .133$ . The loneliness scores of high-accepted children did not change significantly across time.

The third MANOVA examined changes in the school adjustment variables (i.e., school involvement, academic achievement, school avoidance) by acceptance group across time. This analysis revealed a significant group effect (see Table 23). Follow-up univariate analyses indicated that at both Time 1 and Time 2, in comparison to high accepted children, low accepted children had significantly lower levels of self-reported school involvement,  $F(1, 145) = 5.68, p < .05, \eta^2 = .038$  and academic achievement,  $F(1, 145) = 34.75, p < .001, \eta^2 = .193$ .

## CHAPTER 4: DISCUSSION

### *Overview*

The primary purpose of this study was to simultaneously consider the role of early adolescents' peer experiences (i.e., peer acceptance, number of mutual friends, friendship quality) in predicting their adjustment across the transition from elementary to middle school, and to examine whether an understanding of the students' goals and attributions for social situations added to the prediction of adjustment, above and beyond the peer variables. The second goal of this study was to include a comprehensive assessment of participants' functioning across several different domains of adjustment (i.e., loneliness, depression, self-esteem, school involvement, academic achievement, school avoidance) and to investigate changes in these variables across the transition to middle school. Finally, this study sought to add to the existent literature by examining potential gender differences in adjustment across this crucial normative transition. Using the original goals of this project as a framework for discussion, the following paragraphs will highlight notable findings, draw parallels between these results and previous research, and identify limitations and directions for future research.

### *Predicting Adjustment across the Transition*

This study produced an interesting pattern of findings that provides support for the premise that early adolescents' peer experiences predict adjustment across the transition to middle school. Overall, it appears that peer acceptance and friendship each play a significant, yet somewhat different role in predicting adjustment at Time 1 (spring of fifth grade), at Time 2 (fall of sixth grade), and across this transition. In addition, this

study found gender differences in the relative importance of the specific peer variables to the various adjustment variables.

### *Relationships among the Peer Variables*

For both boys and girls, higher levels of peer acceptance were strongly associated with having more mutual friends and, to a lesser extent, being involved in friendships of higher quality. These findings support the premise that certain social skills are common to enhancing both group acceptance and friendship (Furman & Robbins, 1985). Stability coefficients indicated that level of peer acceptance was highly stable across the transition for both boys and girls. This finding is commensurate with research on the chronic nature of peer rejection in childhood and adolescence (e.g., Hymel, Wagner, & Butler, 1990). The stability coefficients for the number of friends and friendship quality variables were moderate, indicating that these two constructs also remained relatively stable across time.

In comparison to results of a recent study on the stability of peer relationships across the transition to middle school (Hardy et al., 2002), the present study found greater stability in peer acceptance. This difference in results may be at least partially accounted for by the fact that the Hardy study suffered from a much higher attrition rate than the present study. Although Hardy and colleagues found that girls experienced greater instability in reciprocated friendships across the transition interval, the current study did not detect gender differences in stability of the peer variables. This discrepancy in results may be due to methodological differences in these two studies. In contrast to the present study, the Hardy et al. study utilized a small sample size ( $n = 66$ ), examined a transition from sixth to seventh grade, assessed the peer variables across six waves of data

collection (i.e., in May of sixth grade, monthly during the fall of seventh grade, and in May of seventh grade), and examined stability across two six-month intervals (i.e., Time 1 to Time 4 and Time 4 to Time 6). Given these methodological inconsistencies, the issue of gender differences in the stability of peer relationships across this transition clearly warrants further investigation.

### *Predicting Loneliness*

Consistent with previous research (e.g., Kupersmidt et al., 1990; Parker & Asher, 1987; Parker & Asher, 1993) and the original hypotheses for this project, loneliness was negatively correlated with peer acceptance, friendship, and friendship quality in the current study. In addition, the regression models using the peer variables to predict loneliness across the transition were significant. More specifically, peer acceptance and number of mutual friendships made unique contributions to the prediction of loneliness across the transition. However, friendship quality did not emerge as a unique predictor of loneliness across time. This finding was unexpected and incongruous with a study conducted by Parker and Asher (1993), which found that having a friend, friendship quality, and peer acceptance each made distinctive contributions to the prediction of concurrent loneliness in a third- through fifth-grade sample.

Although friendship quality did not emerge as a unique predictor of loneliness at Time 1 or across the transition, friendship quality uniquely predicted loneliness for both boys and girls at Time 2. Perhaps as students enter middle school, qualitative aspects of individual friendships (e.g., companionship, intimacy, validation, help and guidance) have a greater influence on emotional adjustment. This is compatible with previous research, which has found that certain qualitative aspects of friendship, such as intimate

self-disclosure, become more important as children move into adolescence (e.g., Berndt et al., 1986; Buhrmester, 1990; Bukowski et al., 1993).

In examining the prediction of loneliness across the transition, the specific pattern of unique predictors varied by gender. Specifically, peer acceptance and number of friendships uniquely predicted loneliness across the transition for boys. For girls, however, number of mutual friendships was the only unique predictor of loneliness across the transition. This finding parallels prior research indicating that the extent of peer rejection was related to internalizing problems in boys, but not in girls (Burks, Dodge, & Price, 1995). These researchers explained their findings in terms of gender differences in children's peer networks. That is, boys' groups tend to be more global in nature, whereas girls' groups tend to involve intimate, dyadic friendships (Eder & Hallinan, 1978). It may be that boys need to be accepted by the larger peer group *and* involved in specific friendships in order to be buffered from feelings of loneliness across the transition to middle school, whereas girls are protected from these negative feelings primarily through involvement in specific friendships. Given that peer acceptance emerged as a unique predictor of loneliness at Time 1 and at Time 2 for both boys and girls, it appears that acceptance is important to *concurrent* adjustment for girls. However, acceptance by the larger peer group does not uniquely predict loneliness for girls *across the transition*.

Interestingly, the overall regression models predicting loneliness at Time 1, at Time 2, and across the transition accounted for more of the variance in loneliness for boys than for girls. These findings are in agreement with recent research (Erdley et al., 2001) and suggest that compared to boys, feelings of loneliness in girls may be affected

by a broader range of factors (e.g., body image) that extend beyond involvement with peers. Finally, an examination of the stability coefficients indicates that loneliness was highly stable across the transition for both boys and girls. This finding corresponds with research conducted by Hymel and Franke (1985), who reported that feelings of loneliness, particularly in children who are rejected by their peers, tend to remain stable over time.

### *Predicting Depression*

Although loneliness and depression were moderately correlated for both boys and girls, the correlations between the peer variables and loneliness were generally stronger than the correlations between the peer variables and depression. In addition, results of the stepwise regression analyses using the peer variables to predict depression produced a different pattern of results. The regression model predicting depression across the transition was not significant for boys or for girls and the model predicting depression at Time 1 was significant for boys only. However, the regression model predicting depression at Time 2 was significant for both boys and girls. It may be that, prior to the transition for girls and across the transition for both boys and girls, depression is affected by factors that extend beyond involvement with peers (e.g., body image, family relationships). Following the transition to middle school, the peer variables play a more important role in predicting depression, particularly for girls. This is in accordance with Sullivan's (1953) theory that relationships with peers become increasingly more important to psychological development and well-being as individuals move from childhood to adolescence.

Given the strong research base on the relationship between the peer variables and the internalizing disorder of depression, it was quite surprising that several of the regressions of depression on the dimensions of early adolescents' peer relationships were not significant. In addition, although peer acceptance and friendship quality emerged as unique predictors of depression, number of mutual friendships never emerged as a unique predictor. Previous research has reported significant regression models using the peer variables (i.e., level of peer acceptance, friendship, and friendship quality) to predict depression (e.g., Boivin et al., 1995; DeRosier et al., 1994; Dumas et al., 1996; Oldenburg & Kerns, 1997; Panak & Garber, 1992; Vandell & Hembree, 1994; Vernberg, 1990). In addition, each of the peer variables made unique contributions to the prediction of depression in these prior studies, both concurrently and across six month to one-year follow-up periods. The unexpected findings regarding the prediction of depression may be related to several different factors, such as the reliance on self-report to assess symptoms of depression in the current study. In addition, it may be that symptoms of depression are less evident when children experience novelty and excitement during the first several weeks of a new school year. Perhaps findings regarding peer variables and the prediction of depression across the transition to middle school would have been more compatible with prior research if this transition study had extended follow-up assessments beyond the initial six weeks of the sixth grade year.

In addition to several regression models that did not significantly predict depression, the regression models that did predict depression accounted for a small proportion of the variance in this adjustment variable for both boys and girls. These findings point to the importance of examining additional factors beyond the peer

variables (e.g., significant family events such as divorce, adolescents' perceptions of the stressfulness of the transition, coping skills, self-esteem) to better understand the prediction of depression, both concurrently and across the middle school transition. For example, past research has established links between depression and self-esteem in adolescent samples (Harter & Jackson, 1993). Analogous to this research, there were strong negative correlations between self-esteem and depression for both boys and girls in the current study. These results point to the importance of examining the role of self-esteem in predicting depression across the middle school transition. As Harter and Whitesell (1996) suggested, it may be that relationships with peers influence an adolescent's self-esteem, which in turn, predicts symptoms of depression.

Although the peer variables are important to concurrent levels of depression at Time 1, it is the Time 1 symptoms of depression that most strongly predict depression across time. As was mentioned previously, the correlations between the peer variables and loneliness were generally stronger than the correlations between the peer variables and depression. Similar to a recent study conducted by Nangle, Erdley, Newman, Mason, and Carpenter (2003), the peer variables may exert an indirect influence on depression, through their associations with loneliness. Consonant with the developmental psychopathology perspective, there are likely to be multiple, complex pathways that lead to the prediction of depression across the transition to middle school. Although beyond the scope of the current study, it would be interesting for future studies to explore these pathways through a statistical procedure such as structural equations modeling.



*Predicting Self-Esteem*

In accordance with the original hypotheses, the regression models using the peer variables to predict self-esteem across the transition to middle school were significant. Peer acceptance emerged as a unique predictor of self-esteem across the transition for boys, whereas number of friends and friendship quality emerged as a unique predictor of self-esteem for girls. Similar to the prediction of loneliness across the transition, these findings may be a reflection of differences in peer networks, with boys' groups tending to be more global in nature and girls' groups tending to involve intimate, dyadic friendships (Eder & Hallinan, 1978). As a result, boys may derive more of their feelings of self-worth from their acceptance by the larger peer group, whereas girls' level of self-esteem is more dependent upon involvement in specific friendships and qualitative aspects of friendship, such as intimacy.

The results regarding the prediction of self-esteem for the girls in the current study are consistent with other research on the impact of involvement in friendship and various aspects of friendship quality on adolescents' self-esteem. For example, Buhrmester (1990) found that involvement in friendships characterized by higher levels of intimacy was moderately correlated with lower levels of anxiety and depression, and higher self-esteem. Similarly, Berndt and Keefe (1996) found that seventh and eighth grade adolescents who were involved in friendships with more positive features (i.e., intimate self-disclosure, prosocial behavior) had higher self-esteem scores and those involved in friendships characterized by negative features (i.e., conflict) obtained significantly lower self-esteem scores. In another investigation, researchers found that

the qualitative aspect of intimacy in adolescents' friendships was more predictive of self-esteem than was popularity (Townsend et al., 1988).

In examining the stability coefficients for self-esteem in the current study, self-esteem was significantly more stable across the transition for girls than for boys. A general self-worth score was used as a measure of self-esteem in this study. Perhaps an examination of specific domains of self-esteem (e.g., academic, social, athletic, appearance, behavior, general self-worth/esteem) would provide more detailed information about gender differences in self-esteem. Specific aspects of self-esteem might be more stable for boys than for girls. In addition, there may be gender differences in the relationships among the peer variables and the specific domains of self-esteem. Given the paucity of research on the role of peer variables in predicting self-esteem and the stability of self-esteem across the transition to middle school, additional research in this area is needed before definitive conclusions can be made regarding possible gender differences in the relationships among these variables.

#### *Predicting School Involvement*

Compatible with original predictions, school involvement was positively correlated with several of the peer variables, and the regressions of school involvement on the dimensions of early adolescents' peer relationships were significant. More specifically, peer acceptance emerged as a unique predictor of school involvement across the middle school transition for both boys and girls. These results are analogous to the findings of research on early school transitions, which indicated that higher levels of peer acceptance and lower levels of peer victimization were related to high levels of school liking (Ladd et al., 1997) and peer rejection predicted more negative attitudes toward

school and lower levels of participation in the classroom (Ladd, 1990; Ladd et al., 1999). Peer acceptance also emerged as a unique predictor of school involvement at Time 1 for both boys and girls and at Time 2 for boys only.

Friendship quality uniquely predicted school involvement for boys at Time 1 and for both boys and girls at Time 2. These results are consistent with research on the role of friendship quality in adjustment to early school transitions. This research found that specific qualitative aspects of friendship (i.e., perceived conflict) were associated with lower levels of school liking and involvement, whereas the friendship feature of aid or assistance predicted improvements in school attitudes (Ladd et al., 1996). In comparing the predictions of school involvement at Time 1 with those at Time 2 in the current study, an interesting pattern emerged. For boys, the unique predictors of school involvement (i.e., peer acceptance, friendship quality) remained the same. For girls, school involvement was uniquely predicted by peer acceptance at Time 1 and by friendship quality at Time 2. This pattern of results suggests that, particularly for girls' self-reported level of school involvement, qualitative aspects of friendship become more important after the transition to sixth grade. These findings are comparable to the results of a short-term longitudinal study conducted by Berndt and Keefe (1995) that examined the influence of friendships on seventh and eighth graders' attitudes toward school and behavior at school over the course of one school year. These researchers found that participants who were involved in best friendships that were characterized by more positive features increased in self-reported levels of involvement across the school year. Similarly, teachers' ratings of the involvement of an individual's friends predicted changes in that individual's level of involvement as rated by teachers across the school

year. It appears that once girls enter middle school, the influence of qualitative aspects of friendship on school involvement becomes stronger than that of the larger peer group.

The number of mutual friendships variable did not emerge as a unique predictor of school involvement at Time 1, at Time 2, or across the transition. This finding is incongruous with research on the unique contribution of friendship to perceptions of school and level of school liking across early school transitions (Ladd, 1990; Ladd et al., 1997). However, as students grow older and encounter later school transitions such as the transition to middle school, perhaps it is not merely the *number* of friends, but the qualitative aspects of friendship or the specific characteristics of a child's friends (e.g., attitudes toward school, motivation to achieve, behavior at school) that exert a stronger influence on adjustment variables such as school involvement (Berndt & Keefe, 1995; Berndt et al., 1990).

Overall, a small proportion of variance was accounted for in school involvement by the peer variables for both boys and girls, particularly in predicting school involvement across the transition. The extent of a student's involvement in school is likely to be influenced by several contextual factors (e.g., classroom size, school size, relationships between students and teachers) that were not assessed in the current study. It would be important for future studies to include an assessment of these contextual variables to examine their role in predicting school involvement across the transition to middle school. The current study relied on a self-report measure to assess students' involvement in school-related activities. It would be interesting for future studies to assess this construct by asking teachers to rate students' attitudes and behavior in the classroom and asking parents to provide a report of their child's attitudes toward school

and involvement in specific school-related activities (e.g., time and effort spent on homework, involvement in sports and extracurricular activities).

### *Predicting Academic Achievement*

The most robust prediction of adjustment in this study involved the regressions of academic achievement on the peer variables. All of the regression models predicting academic achievement (i.e., at Time 1, Time 2, across the transition) were significant for both boys and girls. These models accounted for a relatively large portion of the variance in academic achievement (17 percent) across the transition for both boys and girls. As such, more variance was accounted for in academic achievement by the peer variables than in any of the other adjustment variables predicted across the transition in this study. Peer acceptance repeatedly emerged as a unique predictor of achievement for both boys and girls. In addition, the Time 1 peer variables added significantly to the prediction of Time 2 adjustment, above and beyond Time 1 academic achievement, with peer acceptance emerging as a unique predictor for both boys and girls in these separate regression analyses. These results are in keeping with the empirical literature on the correlates and consequences of children's peer relationships, which has found that peer rejection is associated with school-related difficulties such as poor academic achievement (e.g., DeRosier et al., 1994; Kupersmidt et al., 1990; Ollendick et al., 1992; Parker & Asher, 1987). The strong prediction of academic achievement in this study points to the importance of including a peer component in interventions that are aimed at improving students' academic adjustment across the transition to middle school.

Given the bulk of empirical support for associations between friendship and academic achievement, it is somewhat surprising that number of mutual friendships and

friendship quality did not uniquely predict academic achievement in this study. This finding is incompatible with research on early school transitions, which found that number of friends predicted school performance (Ladd, 1990). Similarly, previous research with a middle school sample found that peer group membership (i.e., groups of reciprocal friends) significantly predicted grade point average (Wentzel & Caldwell, 1997). Berndt and Keefe (1995) have also found that various features of seventh and eighth graders' friendships (e.g., positive features such as intimate disclosure and prosocial behavior, negative features such as conflict and rivalry) predict changes in school involvement and academic achievement over the course of the school year. The study conducted by Ladd (1990) followed students for an entire year after they made the transition to kindergarten. Wentzel and Caldwell (1997) had a three-year follow-up period, whereas Berndt and Keefe (1995) followed their sample across one school year. Although the current study collected information on participants' average academic achievement across the entire fifth grade school year, participants' academic achievement for the Time 2 assessment was based only on the first nine-week grading period. Results on the unique contributions of the peer variables to adjustment may have been different if this study had included several follow-up assessments throughout the first year of middle school when academic demands typically become more rigorous (Eccles et al., 1996; Simmons & Blyth, 1987). As Berndt and Keefe (1995) suggest, in addition to examining qualitative aspects of friendship, gathering information about the academic achievement of an adolescent's friends may be an important way to understand changes in that adolescent's own level of academic achievement. One study on early school transitions found that perceived exclusivity in friendship was related to lower levels of achievement

(Ladd et al., 1996). Perhaps expanding the assessment of friendship quality to include specific characteristics of a child's friendships (e.g., friends' grades and attitudes toward school) would lead to an increased understanding of the role of friendship in predicting academic achievement across the transition to middle school.

### *Predicting School Avoidance*

Although the correlations between the peer and school avoidance variables at Time 1 and at Time 2 were in the predicted negative direction, few of these correlations were significant. In addition, the regression models predicting school avoidance at Time 1 and at Time 2 were not significant. This is surprising, given the numerous studies that have established links between peer relationship problems and greater rates of absenteeism (e.g. DeRosier et al., 1994; Kupersmidt et al., 1990; Parker & Asher, 1987). As hypothesized, however, the peer variables significantly predicted school avoidance (i.e., proportion of days absent from school) across the transition, with number of friends as a unique predictor for boys and friendship quality as a unique predictor for girls. Prior research on the role of friendship quality in children's early school adjustment found that, for boys, perceived conflict in friendships was associated with various aspects of school maladjustment, such as higher levels of school avoidance, and lower levels of school liking and involvement. Whereas the current study utilized an average friendship quality score, it may be important for future studies to examine the prediction of school avoidance using the various friendship quality subscales (e.g., validating and caring, conflict resolution, conflict and betrayal, help and guidance, companionship and recreation, intimate exchange). This may lead to an identification of gender differences

in the relationship between specific qualitative aspects of friendship and the adjustment variable of school avoidance.

Across several studies, researchers have found that children who are rejected by their peers tend to experience higher rates of absenteeism (DeRosier et al., 1994; Kupersmidt et al., 1990; Parker & Asher, 1987). Similarly, Ollendick and colleagues (1992) found that children who were classified as rejected in fourth grade were more likely to drop out of school at the five-year follow-up than children who were classified as popular, neglected, or average. Based on this research, it is surprising that level of peer acceptance did not emerge as a unique predictor of school avoidance across the transition. However, whereas the research cited above utilized the construct of peer rejection (i.e., active disliking by peers), the current study focused on peer acceptance (i.e., rating of the extent to which peers enjoy spending time with a particular child). Other research on early school transitions has found that peer victimization uniquely predicted school avoidance (Ladd et al., 1997). It appears that active dislike or victimization by peers may predict school avoidance more strongly than measures of peer acceptance. In order to more fully understand school avoidance across the transition to middle school, it may be important for future studies to include measures of peer rejection or victimization by peers. Similar to the academic achievement variable, absentee data for this study were collected across the entire fifth grade year, but for only the first nine weeks of the sixth grade school year. It would be important for future studies to examine absentee data beyond the initial portion of the school year to more accurately assess the construct of school avoidance and determine the role of the peer variables in predicting school avoidance across the transition to middle school.



*Adding the Social-Cognitive Variables*

In addition to the peer variables, this study evaluated early adolescents' goals and attributions for social failure situations. Results indicated that the social goals added significantly to the prediction of several of the adjustment variables (i.e., depression for girls, self-esteem for boys, school involvement for both boys and girls) across the transition. Interestingly, endorsement of retaliation goals in response to hypothetical social failure situations consistently emerged as a unique predictor of adjustment for both boys and girls. According to Erdley and Asher (1999), the goal upon which children place the greatest level of importance will produce related behavioral strategies. For example, children who endorse retaliatory goals most strongly are likely to behave aggressively in their interactions with peers. Consequently, as other research has found, an endorsement of retaliatory goals is strongly associated with lacking mutual friendships and having friendships of lower quality (Rose & Asher, 1999). There is also empirical support for the premise that as many as half of children's attempts to initiate interactions with peers are either rejected or ignored (Putallaz & Wasserman, 1990). However, successful group entry is a precursor to further social involvement. Particularly when coming together with new peers following the transition to middle school, early adolescents may be faced with numerous situations in which they have to initiate interactions with peers. Early adolescents who react to failed peer group entry attempts with retaliatory responses may be at particular risk for future social difficulties. Therefore, in conducting interventions that prepare early adolescents for the transition to middle school, it may be particularly important to discuss alternatives to retaliatory strategies by emphasizing prosocial goals and behaviors.

Somewhat surprisingly, the social goals did not add to the prediction of many of the adjustment variables (i.e., loneliness, academic achievement, and school avoidance for boys and girls; depression for boys; self-esteem for girls). Based on the significant correlations between the social goal and adjustment variables, it is probable that the goals would have significantly predicted adjustment if the regression models had not included the peer variables. Given that the goal variables were correlated with several of the peer variables, when the peer variables were entered in the first block of predictors they absorbed much of the variance in adjustment, leaving little remaining variance to be accounted for by the social goal variables. Consonant with the information processing model proposed by Crick and Dodge (1994), there is likely to be a complex interplay among the social-cognitive and peer variables across the transition to middle school. For example, it may be that early adolescents endorse particular goals that lead to behavioral strategies that, in turn, predict peer relationships. These relationships with peers may have more of a direct impact on psychological and school adjustment. It would be important for future studies to examine these types of relationships through more sophisticated statistical approaches, such as structural equations modeling.

Another interesting finding related to the social goals examined in this study was that performance goals correlated negatively with the peer variables and learning goals correlated positively with the peer variables, particularly for boys. Performance goals also correlated negatively with several of the adjustment variables for both boys and girls. These results indicate that it may be more adaptive for early adolescents to focus on learning goals (i.e., learning how one could respond differently in the future), rather than performance goals (i.e., being concerned about preserving one's peer status) in social

situations. Several investigations within the academic achievement domain (e.g., Anderman et al., 1999; Anderman & Midgley, 1997; Midgley et al., 1995) have established links between changes in adolescents' goal orientations and declines in motivation and academic achievement across the middle school transition. One particular study by Anderman and Midgley (1997) found that during elementary school, students endorsed task or learning goals more strongly, reported a greater emphasis on task goals during classroom instruction, and perceived themselves as being more academically competent. Following the transition to middle school, students reported more emphasis on performance goals and significantly lower levels of academic competence. Paralleling this research, the endorsement of learning goals declined significantly across the transition for both boys and girls in the current study. Although not significant, the endorsement of performance goals also increased across time in this study. It would be essential to follow students throughout their first year of middle school to evaluate further changes in the endorsement of learning and performance goals. Overall, the results of this study indicate that it will be crucial for future middle school transition research and intervention programs to focus on the goals that early adolescents endorse in socially challenging situations.

Inconsistent with the original hypotheses for this study, the correlations between the attribution and peer variables were generally not significant. In addition, no clear patterns emerged in the correlations between the attribution and adjustment variables. The attribution variables also did not add to the prediction of any of the Time 2 adjustment variables, above and beyond the Time 1 peer variables. Given that the social goal and attribution variables were entered in the same block of predictors, it may be that

the social goals subsumed much of the variance in predicting adjustment, leaving little variance to be accounted for by the attribution variables. In administering the hypothetical situations and corresponding questions to assess the goals and attributions for this study, several of the early adolescents commented that they had difficulty following the instructions to decide what they would be thinking (i.e., attributions) for each scenario. This difficulty may have impeded the accurate assessment of the attribution variables in this study. Given the links between attributions and peer acceptance established by previous studies (e.g., Ames et al., 1977; Earn & Sobol, 1990; Toner & Munro, 1996) and the significant connection between children's attributions and social goals (Crick & Dodge, 1994; Erdley et al., 1997), it will be important for future studies to continue to examine the potential role of the attribution variables across the transition to middle school.

### *Summary Points*

Overall, peer acceptance emerged as a unique predictor of adjustment for both boys and girls. For several of the adjustment variables, friendship quality seemed to play an increasingly more important role *after* students entered middle school, at Time 2. Alternatively, the friendship variables did not emerge as unique predictors of several of the adjustment variables (i.e., depression, school involvement, academic achievement) across the transition. However, many of the overall regression models with the peer variables (i.e., peer acceptance, number of friends, friendship quality) were significant. Given that the friendship variables were moderately correlated with peer acceptance, which was a unique predictor of adjustment across the transition, one could conclude that friendship also has an important, yet perhaps indirect, influence on adjustment across the

transition. In terms of the social-cognitive variables, the social goal variables added significantly to the prediction of several of the adjustment variables for both boys and girls. In addition, the endorsement of learning goals decreased significantly across time. These exploratory findings point to the importance of including social goal variables in future middle school transition studies, and considering the use of statistical approaches such as structural equations modeling to more accurately capture the complex relationships among the peer, social-cognitive, and adjustment variables across this transition.

Several notable findings emerged with respect to gender differences in the prediction of adjustment across the transition. Given that the majority of the regression models using the peer variables to predict adjustment were significant for both boys and girls, it appears that the combination of the three different peer variables plays an important role for both genders. It is possible to make finer distinctions in the importance of each of the peer variables for boys and girls by examining the unique predictors. In doing so, it is challenging to make broad conclusions because the gender differences in the unique predictors varied across the adjustment variables. In predicting loneliness and self-esteem, peer acceptance generally played a more important role for boys' adjustment, whereas girls' adjustment appeared to be more dependent upon involvement in specific friendships and qualitative aspects of friendship. However, for both boys and girls, acceptance by the larger peer group was essential in predicting the school adjustment variables of involvement and academic achievement. For both boys and girls, qualitative aspects of friendship appeared to become more crucial at Time 2, after the students entered middle school. Given the relatively small number of studies that have

considered the role of the peer variables in predicting adjustment across the transition to middle school, additional research is needed before definitive conclusions can be made about the possible gender differences in the relative importance of the peer variables to each of the adjustment variables considered in this study.

### *Examining Change across the Transition*

#### *Changes in the Peer Variables*

Results of this study indicated that peer acceptance declined significantly across the transition for boys and girls. However, the average number of mutual friendships increased significantly across the transition for boys and girls, and the friendship quality variable did not change significantly across time. Since this is one of the first studies to examine the role of peer variables across the middle school transition, it will be important to determine if future studies replicate these findings.

#### *Changes in the Adjustment Variables*

Several of the findings with respect to changes in adjustment across the transition were inconsistent with the original hypotheses for this project. Specifically, loneliness and depression decreased significantly for both boys and girls across the transition to middle school. These results parallel other research on boys' adjustment across the transition to junior high or middle school, which has found decreases across various symptom domains (e.g., symptoms of depression, obsessive-compulsiveness, hostility) for boys across this transition (Hirsch & Rapkin, 1987). However, the results of the current study are incompatible with research that found increases in psychological distress for girls across the transition to junior high or middle school (Chung et al., 1996; Hirsch & Rapkin, 1987). Another interesting result of the current study was that self-

esteem increased from Time 1 to Time 2 for both boys and girls. Past research on the extent to which self-esteem changes across the transition to middle school has produced conflicting results, with some studies reporting declines in self-esteem across the transition and others reporting that adolescents' self-esteem increases or remains the same. The results regarding self-esteem in the current study are commensurate with studies reporting that self-esteem either remained stable or increased across the transition to junior high school (Hirsch & Rapkin, 1987; Proctor & Choi, 1994).

In terms of the school adjustment variables, it was originally predicted that school involvement would decline across the transition. Results of the current study indicated that school involvement did not change significantly across the transition. Although unexpected and inconsistent with previous research that reported declines in adolescents' perceptions of the quality of school life (Hirsch & Rapkin, 1987), the results of the current study are in accordance with other studies that found that the majority of students did not evidence declines in attitudes toward school or school involvement across the middle school transition (McDougall & Hymel, 1998). Similar to the sample in the McDougall and Hymel (1998) study, most students in the current study transitioned into a relatively small middle school. In addition, although students had a different teacher for each subject, they moved from one subject to the next with the same group of classmates. Several of the middle schools in the current study received students from only one or two "feeder" elementary schools. Therefore, students that transitioned into these schools did not face as much of a disruption in their peer groups as students who transition to middle school with unfamiliar peers from several different elementary schools. As McDougall and Hymel (1998) found, those students who perceive the transition as being more

stressful are more likely to report poor school attitudes and social adjustment problems following the transition to middle school. It would be important for future studies to assess students' perceptions of the stressfulness of the middle school transition and examine how this variable combines with the peer variables to predict early adolescents' adjustment across this transition.

Consistent with the original hypotheses and prior research on the middle school transition (e.g., Alspaugh, 1998; Chung et al., 1998; Crockett et al., 1989), there was a significant decline in academic achievement across the transition in this study. This decrease in academic achievement may be related to the tendency for middle school teachers to use stricter grading standards than elementary school teachers (Eccles et al., 1996; Simmons & Blyth, 1987). Several investigations have also established links between changes in adolescents' achievement goal orientations and declines in motivation and academic achievement across the middle school transition (e.g., Anderman et al., 1999; Anderman & Midgley, 1997; Midgley et al., 1995). In order to intervene to try to prevent these declines in academic achievement across the transition to middle school, it may be important for middle schools to shift the emphasis toward a task or learning goal orientation. Particularly at the beginning of middle school, students face numerous changes that could negatively impact their academic achievement (e.g., changing classes, having a different teacher for every class). It would be interesting for future studies to include additional follow-up assessments after students have made the transition to middle school to examine how achievement goal orientations and academic achievement change across the middle school year.



Whereas some studies have found that the transition to middle school coincides with declines in early adolescents' well-being (Alspaugh, 1998; Chung et al., 1998; Eccles et al., 1996; Simmons & Blyth, 1987), other studies have reported that adjustment variables such as self-esteem either remain the same or increase across this transition (e.g., Hirsch & Rapkin, 1987; Proctor & Choi, 1994). According to the stage-environment fit theory, individuals are likely to experience adjustment difficulties when a particular environment does not meet their psychological needs. More specifically, Eccles and Midgley (1989) hypothesized that the social environments of most junior high and middle schools (e.g., increased school size, more impersonal teacher-student relationships, emphasis on discipline and control in the classroom) do not match the psychological needs of adolescents. Due to this mismatch between adolescent needs and characteristics of the school environment, adolescents display declines in motivation, interest, academic achievement, and behavior as they enter these new school contexts. Perhaps students in the current study did not evidence declines in most domains of adjustment because the schools who were interested in participating in this study were already doing a great deal to prepare students for the transition to middle school (e.g., "move-up days" for fifth graders to visit the middle school, advisory groups, teams of two to three teachers so that students did not have a different teacher for every subject). In addition, many of the participating schools were small, providing more opportunities for students to be involved, even at the middle school level. Despite these positive characteristics, there may still have been some degree of "lack of fit" that led to the declines in academic achievement found in the current study.

### *Comparisons by Peer Status*

Commensurate with original predictions and previous research (e.g., Parker & Asher, 1987), in comparison to low-accepted children, high-accepted children had significantly more mutual friends at both Time 1 and Time 2. However, high-accepted children did not have significantly higher quality friendships than low-accepted children. It was also surprising that number of friends increased significantly across the transition for both the low- and high-accepted groups. Consistent with research on peer acceptance (Asher et al., 1990; Kupersmidt et al., 1990; Panak & Garber, 1992), in comparison to high-accepted children, low-accepted children reported significantly higher levels of loneliness and depression, and lower levels of self-esteem at both Time 1 and Time 2. It was also originally predicted that, in comparison to high-accepted children, low-accepted children would evidence significantly greater declines in self-esteem, school involvement, and academic achievement, and greater increases in loneliness and depression across the transition to middle school. This hypothesis was not supported. In fact, from Time 1 to Time 2, there was a significant *decrease* in loneliness for low-accepted children, whereas the loneliness scores of high-accepted children did not change significantly across time. Although they reported lower levels of adjustment than the high-accepted children at both Time 1 and Time 2, the low-accepted children in this study did not evidence further declines in adjustment across the transition to middle school. Perhaps the novelty associated with the initial weeks following the transition to middle school and the opportunity to interact with new peers had a positive impact on the low-accepted children in this study. It would be interesting for future studies to follow students beyond the initial weeks after the transition to middle school, to determine

whether low-accepted children experience declines in peer and psychological adjustment across time.

### *Limitations and Directions for Future Research*

One limitation of this study was that only sixty-two percent of the fifth grade student population from the six school districts participated in this project. Due to ethical considerations, students who did not have permission from a parent or guardian to participate could not be listed on the peer rating or friendship nomination measures. Therefore, some children who appeared “friendless” may indeed have had a friend who simply did not have permission to participate in the study. Given that the peer acceptance variable is an average of how all of the participating children in a given classroom rated each child, the participation rate would likely not affect the acceptance ratings as greatly as the friendship variables. In this study, children were asked to select best friends from a list of participating grade mates. As such, a child who had a best friend in another grade did not have the option of selecting that individual. In addition, the current study included an assessment of the qualitative aspects of only *one* mutual friendship. Perhaps the quality of one friendship is not representative of the quality that children experience across several different friendships. Of the participating schools, three of the middle schools received students from only one “feeder” elementary school (57% of the sample), two of the middle schools each received students from two elementary schools (32% of the sample), and one middle school received students from three elementary schools (11% of the sample). Therefore, many students in this study did not encounter the challenge of coming together with new peers upon entering middle school. Despite the fact that most of the students in this study made the transition with the same peer group,

they still faced significant changes (e.g., youngest group of students in middle school, more impersonal relationships with teachers, higher expectations from teachers, more emphasis on discipline in middle school). However, on average, the students in this study did not evidence declines in adjustment across time. As McDougall and Hymel (1998) have suggested, it may be important to assess early adolescents' perceptions of the stressfulness of the middle school transition and investigate how the peer variables interact with this factor to influence adjustment. Other researchers have emphasized the importance of including an assessment of factors such as family relationships and involvement or significant family events (e.g., divorce) that may combine with changes associated with school transitions to negatively impact an early adolescents' adjustment (Rimm-Kaufman & Pianta, 2000).

Future directions for this research include using additional outcome measures (i.e., students' perceptions of the stressfulness of the transition). It would also be interesting to examine how the role of peer variables across the transition may vary depending on contextual variables (e.g., large versus small middle school size, one versus many feeder elementary schools). As mentioned previously, it would be crucial for future studies to move beyond self-report measures to include information from parents and teachers. Following the developmental psychopathology model, future studies could include additional follow-up assessments beyond the initial six weeks of middle school. More sophisticated statistical procedures, such as structural equations modeling, might provide insight into the complex interplay among the peer, social-cognitive, and adjustment variables in this study. Expanding the assessment of friendship quality and self-esteem to include the subscales of these measures could clarify gender differences

found in this study. With respect to the friendship variables, additional studies with higher participation rates and assessments of the quality of more than one mutual friendship could clarify the role of these variables in predicting adjustment across the transition to middle school.

Overall, peer acceptance, number of friendships, and friendship quality appear to be somewhat related dimensions of early adolescents' peer experience that make unique contributions to psychological and school adjustment, both concurrently and across the middle school transition. Therefore, in preparation for the transition to middle school, it may be particularly important to focus intervention efforts on those children with low peer acceptance to increase their social support network. The strong links between peer acceptance and school adjustment for boys and girls found in this study suggest that school officials may positively impact students' school attitudes and achievement by introducing programs focused on improving peer relationships. Results of this study indicate that the development of interventions specifically tailored to improving children's friendship experiences may also be needed (Furman & Robbins, 1985). For example, such interventions could include a component that focuses on enhancing the quality of early adolescents' friendships as well as increasing the size of the friendship network. Results of this study suggest that it may be particularly important for interventions to target friendship quality following the transition to middle school. Additional research on potential gender differences in how the peer variables influence adjustment across the transition may lead to tailoring these interventions based on the different needs of each gender (e.g., focusing on the larger peer network to enhance psychological adjustment for boys, targeting aspects of friendship for girls). Overall,

middle school transition intervention programs that include a peer component would likely lead not only to improved psychological adjustment but also to more positive school adjustment across this transition.

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## Appendix A

## Parent/Guardian Permission Form

February, 2001

Dear Parents/Guardians,

Your child is invited to participate in a University of Maine research project being conducted by Julie E. Newman, a developmental-clinical doctoral candidate, and Cynthia A. Erdley, an associate professor in the Department of Psychology. The purpose of this project is to learn more about how children's friendship experiences, their thoughts regarding social interactions, and their feelings about school relate to how children adjust to the transition from elementary school to middle school.

**What's involved?** This project involves four classroom sessions held at your child's school. During the first session, which will last about 45 minutes, children will be asked to rate (privately) how much they like to play with each person in their classroom on a scale of 1 (don't like to) to 5 (like to a lot). They will also be presented with a list of students in the class and asked to circle the names of their three best friends. Please note: only the names of those children who have permission to participate in this project will be included on these lists. Children will also be asked to rate their feelings of loneliness and depression. For loneliness, children will be asked to rate themselves on a 1 (that's not true at all about me) to 5 (that's always true about me) scale (e.g., "I feel alone at school," "I don't have anyone to play with at school"). For depression, children will be asked to rate how often they experience feelings related to depression (e.g., the child is asked to choose one of the following: "I am sad once in awhile," "I am sad many times," or "I am sad most of the time"). In addition, children will be asked to rate on a 1 (never) to 5 (very often) scale their participation in classroom activities (e.g., "How often do you take part in class discussions or activities?").

In the second session (a few weeks later in the classroom) which will last about 45 minutes, children will be asked to rate aspects of their particular friendships with students in the classroom on a 1 (not at all true) to 5 (really true) scale (e.g., "My friend, \_\_\_\_\_, and I do fun things together a lot," "My friend, \_\_\_\_\_, tells me I am good at things"). Children will also answer questions regarding their self-esteem across several different areas (e.g., academic, social, athletic, appearance). For this questionnaire, children are first asked to choose one statement from a pair of statements that is true of them (e.g., "Some kids find it *hard* to make friends BUT Other kids find it's pretty *easy* to make friends.") and then indicate whether that statement is "sort of true" or "really true" of themselves. A third questionnaire will include five hypothetical stories describing a socially challenging situation (e.g., Imagine that you are at school. During gym class, you go outside and try to join in a kickball game with another group of

girls/boys. They tell you that you can't play.). Children will then be asked several questions related to the stories, and they will privately give written responses. These questions include how your child would explain why the situation occurred (e.g., The girls/boys and I are just too different from each other.) and why he or she would respond to the event in a certain way (e.g., to get along with the child, to figure out how to join in next time). Finally, children will be asked to report (privately) their grades in four school subjects (i.e., language arts, science, social studies, math). Information on academic achievement will also be gathered either through grades from school records or teachers' ratings of each child's overall achievement level.

To conclude the study, about a month after entering middle school, children will be asked to complete the same sets of questionnaires. Once again, this will be done in two classroom visits.

**Will answers be private?** All information obtained from each of the sessions will be private. The information will only be used for research purposes. Names will **NOT** be connected with the answers provided by your child. Instead, an identification number will be placed on all questionnaires. These questionnaires will be stored in a locked laboratory room and will be destroyed upon completion of the project. In addition to your permission, each child will be asked if he or she wants to participate. Also, each child will have the opportunity to skip any or all of the questions. There is absolutely no penalty for a child who decides not to participate, skips any questions, or stops in the middle of a session.

A possible exception to this privacy of responses is in cases in which a child tells us that he or she is feeling very depressed. In these cases, we feel that the well being of the child is more important than our agreement of privacy, and we will inform that child's teacher and/or guidance counselor, and assure you that you will also be notified if your child's score indicates a concern in this area.

**Risks/Benefits:** The risk involved in this project is no greater than what children experience in daily school life. However, if your child should experience any distress from being involved in this project, we are available to meet with him or her to discuss any concerns. Every effort will be made to ensure that children do not discuss their answers with each other. We have done similar projects in the past in other Maine school districts and have found that most children have reported enjoying these sessions. Although this study may not benefit your child directly, it is hoped that the information gathered will be useful in the design of intervention programs to help children cope with the transition from elementary to middle school.

**What do I need to do?** Please fill out and **return** the attached permission form to your child's classroom teacher **as soon as possible**.

**Questions?** We hope that you will allow your child to be involved in this project. If you have any questions, please feel free to contact Julie Newman at 581-3360 or Cynthia Erdley at 581-2040. If you reside outside of the local calling area, you can call us collect. Thanks very much for your consideration!

Sincerely,

Julie E. Newman, B.A.  
Graduate Student in Psychology

Cynthia A. Erdley, Ph.D.  
Associate Professor of Psychology

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Parent/Guardian consent for University of Maine research project on children's adjustment from elementary school to middle school conducted by Julie Newman and Cynthia Erdley.

PLEASE RETURN AS SOON AS POSSIBLE--**THANKS!!**

\_\_\_\_\_ YES, my child can participate.

\_\_\_\_\_ NO, my child may not participate

Child's Name: \_\_\_\_\_

Parent/Guardian Signature: \_\_\_\_\_

## Appendix B

## Assent Script

Hi, my name is \_\_\_\_\_, and I'm from the University of Maine. I am here today because I'm interested in learning about children's friendships and how kids feel about their friends, themselves, and their experiences at school. I have decided to come to ask you these questions because you are the *experts* on what fifth graders think about things. By learning more about fifth graders, I'll be able to better understand and work with kids who are your age.

*There are three parts to our project.* Today, I'll be asking you to tell me who your friends are and how much you like participating in activities with the kids in your class. I will also ask you how often you feel lonely and sad at school and how you feel about school, in general.

In a few weeks, I will return and ask you to tell me some more things about yourself and what you think about different things that could happen at school. Next Fall when you are in middle school, I will come back and ask you some of the same kinds of questions.

*This is not a test* – it's not like a spelling test or a math test. There are no "right" or "wrong" answers. What is important is what you think. You do not have to answer any question that you feel uncomfortable about. If you don't want to answer a question, just put an "X" through it.

*Your answers are private.* First, we ask you not to talk about the study with other kids. We also ask you to use folders that we have to help you keep your answers to yourself. Second, we keep your answers private by taking your name off of the questionnaires and using id numbers. Third, we do not share your answers with other people.

We sent a letter home to your parents/guardians and they agreed to let you participate in this project, but we'd like to have your permission also. So, as I'm passing out the booklets, please tell me if you would like to participate or not.

## Appendix C

## Peer Rating Measure

Name: \_\_\_\_\_ Age: \_\_\_\_\_ years \_\_\_\_\_ months

How much do you like to spend time with this person at school?

Example	I don't like to					I like to a lot
Louise Blue	1 -----	2 -----	3 -----	4 -----	5 -----	
Russell Gray	1 -----	2 -----	3 -----	4 -----	5 -----	

---

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

Note: Names of those

in the class who are

participating are listed here.

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5

1 ----- 2 ----- 3 ----- 4 ----- 5



Appendix D

Peer Nomination Measure

Who are your best friends?

Class rosters for the grade or team (listing only those children who are participating in the study) are inserted here.

(below the list of names, the following statement is inserted)

Choosing from the names that you circled above, who is your very best friend?  
Write that person's name on the line below:

---

## Appendix E

## Loneliness and Social Dissatisfaction Questionnaire

All items are responded to on a 5-point scale that indicates the degree to which the statement is a true description of the child.

always	true about	sometimes	hardly ever	not true
true	me most	true	true	at all
about me	of the time	about me	about me	about me

## Items:

1. It's easy for me to make new friends at school.
2. I like to read.
3. I have nobody to talk to in class.
4. I'm good at working with other children in my class.
5. I watch TV a lot.
6. It's hard for me to make friends at school.
7. I like school.
8. I have lots of friends in my class.
9. I feel alone at school.
10. I can find a friend in my class when I need one.
11. I play sports a lot.
12. It's hard to get kids in school to like me.
13. I like science.
14. I don't have anyone to play with at school.
15. I like music.
16. I get along with my classmates.
17. I feel left out of things at school.
18. There are no other kids I can go to when I need help at school.
19. I like to paint and draw.
20. I don't get along with other children in school.
21. I'm lonely at school.
22. I am well liked by the kids in my class.
23. I like playing board games a lot.
24. I don't have any friends in class.

## Appendix F

## Children's Depression Inventory

Instructions: Kids sometimes have different feelings and ideas. This form lists the feelings and ideas in groups. From each group of three sentences, pick one sentence that describes you best *for the past two weeks*. After you pick a sentence from the first group, go on to the next group. There is no right or wrong answer. Just pick the sentence that best describes the way you have been recently. Put a mark like this X next to the answer that you pick.

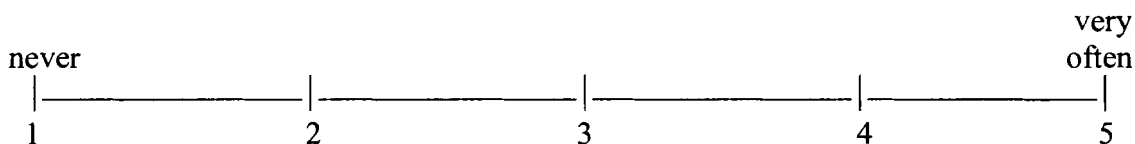
- |   |   |
|---|---|
| <p>1.     <input type="checkbox"/> I am sad once in awhile.<br/>                <input type="checkbox"/> I am sad many times.<br/>                <input type="checkbox"/> I am sad all the time.</p>   | <p>8.     <input type="checkbox"/> All bad things are my fault.<br/>                <input type="checkbox"/> Many bad things are my fault.<br/>                <input type="checkbox"/> Bad things are usually not my fault.</p>                          |
| <p>2.     <input type="checkbox"/> Nothing will ever work out for me.<br/>                <input type="checkbox"/> I am not sure if things will work out for me.<br/>                <input type="checkbox"/> Things will work out for me O.K.</p>                                      | <p>10.   <input type="checkbox"/> I feel like crying every day.<br/>                <input type="checkbox"/> I feel like crying many days.<br/>                <input type="checkbox"/> I feel like crying once in a while.</p>                           |
| <p>3.     <input type="checkbox"/> I do most things O.K.<br/>                <input type="checkbox"/> I do many things wrong.<br/>                <input type="checkbox"/> I do everything wrong.</p>   | <p>11.   <input type="checkbox"/> Things bother me all the time.<br/>                <input type="checkbox"/> Things bother me many times.<br/>                <input type="checkbox"/> Things bother me once in a while.</p>                             |
| <p>4.     <input type="checkbox"/> I have fun in many things.<br/>                <input type="checkbox"/> I have fun in some things.<br/>                <input type="checkbox"/> Nothing is fun at all.</p>   | <p>12.   <input type="checkbox"/> I like being with people.<br/>                <input type="checkbox"/> I do not like being with people many times.<br/>                <input type="checkbox"/> I do not want to be with people at all.</p>             |
| <p>5.     <input type="checkbox"/> I am bad all the time.<br/>                <input type="checkbox"/> I am bad many times.<br/>                <input type="checkbox"/> I am bad once in a while.</p>  | <p>13.   <input type="checkbox"/> I cannot make up my mind about things.<br/>                <input type="checkbox"/> It is hard to make up my mind about things.<br/>                <input type="checkbox"/> I make up my mind about things easily.</p> |
| <p>6.     <input type="checkbox"/> I think about bad things happening to me once in a while.<br/>                <input type="checkbox"/> I worry that bad things will happen to me.<br/>                <input type="checkbox"/> I am sure that terrible things will happen to me.</p> |   |
| <p>7.     <input type="checkbox"/> I hate myself.<br/>                <input type="checkbox"/> I do not like myself.<br/>                <input type="checkbox"/> I like myself.</p>  |   |

- |  |   |
|--|---|
| <p>14. <input type="checkbox"/> I look O.K.<br/> <input type="checkbox"/> There are some bad things about my looks.<br/> <input type="checkbox"/> I look ugly.</p>   | <p>22. <input type="checkbox"/> I have plenty of friends.<br/> <input type="checkbox"/> I have some friends but I wish I had more.<br/> <input type="checkbox"/> I do not have any friends.</p>                     |
| <p>15. <input type="checkbox"/> I have to push myself all the time to do my schoolwork.<br/> <input type="checkbox"/> I have to push myself many times to do my schoolwork.<br/> <input type="checkbox"/> Doing schoolwork is not a big problem.</p> | <p>23. <input type="checkbox"/> My schoolwork is alright.<br/> <input type="checkbox"/> My schoolwork is not as good as before.<br/> <input type="checkbox"/> I do very badly in subjects I used to be good in.</p> |
| <p>16. <input type="checkbox"/> I have trouble sleeping every night.<br/> <input type="checkbox"/> I have trouble sleeping many nights.<br/> <input type="checkbox"/> I sleep pretty well.</p>   | <p>24. <input type="checkbox"/> I can never be as good as other kids.<br/> <input type="checkbox"/> I can be as good as other kids if I want to.<br/> <input type="checkbox"/> I am just as good as other kids.</p> |
| <p>17. <input type="checkbox"/> I am tired once in a while.<br/> <input type="checkbox"/> I am tired many days.<br/> <input type="checkbox"/> I am tired all the time.</p>   | <p>25. <input type="checkbox"/> Nobody really loves me.<br/> <input type="checkbox"/> I am not sure if anybody loves me.<br/> <input type="checkbox"/> I am sure that somebody loves me.</p>                        |
| <p>18. <input type="checkbox"/> Most days I do not feel like eating.<br/> <input type="checkbox"/> Many days I do not feel like eating.<br/> <input type="checkbox"/> I eat pretty well.</p>   | <p>26. <input type="checkbox"/> I usually do what I am told.<br/> <input type="checkbox"/> I do not do what I am told most times.<br/> <input type="checkbox"/> I never do what I am told.</p>                      |
| <p>19. <input type="checkbox"/> I do not worry about aches and pains.<br/> <input type="checkbox"/> I worry about aches and pains many times.<br/> <input type="checkbox"/> I worry about aches and pains all the time.</p>                          | <p>27. <input type="checkbox"/> I get along with people.<br/> <input type="checkbox"/> I get into fights many times.<br/> <input type="checkbox"/> I get into fights all the time.</p>                              |
| <p>20. <input type="checkbox"/> I do not feel alone.<br/> <input type="checkbox"/> I feel alone many times.<br/> <input type="checkbox"/> I feel alone all the time.</p>   |   |
| <p>21. <input type="checkbox"/> I never have fun at school.<br/> <input type="checkbox"/> I have fun at school only once in a while.<br/> <input type="checkbox"/> I have fun at school many times.</p>  |   |

## Appendix G

## School Involvement Measure

All items are responded to on a 5-point scale that indicates how often each statement applies to the child.



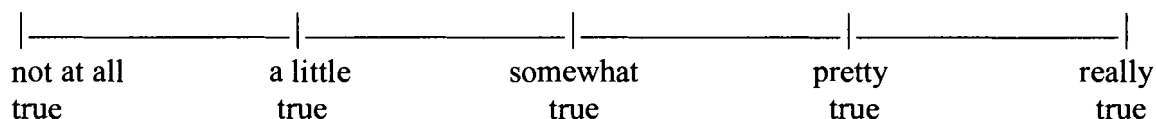
## Items:

1. How often do you take part in class discussions or activities?
2. How often do you put a lot of energy into what you do in school?
3. How often do you “doodle” or pass notes at school?
4. How often do you present something that you’ve worked on to the class?
5. How often do you daydream in school?
6. How often do you put your best effort into doing your homework?
7. How often do you only feel half awake during school?
8. How often do you find yourself “clock watching” in school?
9. How often do you really pay attention to what the teacher is saying?
10. How often do you do extra work on your own for your classes?
11. How much do you really enjoy this school?
12. How often do you rush through your homework just to get it done?

## Appendix H

## Friendship Quality Questionnaire – Revised

All items are responded to on a 5-point scale that indicates the degree to which the statement is a true description of a child's friendship with a specific child (whose name is inserted into each question).



## Items:

1. \_\_\_\_\_ lives really close to me.
2. \_\_\_\_\_ and I always sit together at lunch.
3. \_\_\_\_\_ and I get mad a lot.
4. \_\_\_\_\_ tells me I am good at things.
5. \_\_\_\_\_ sticks up for me if others talk behind my back.
6. \_\_\_\_\_ and I make each other feel important and special.
7. \_\_\_\_\_ and I always pick each other as partners for things.
8. \_\_\_\_\_ says "I'm sorry" if [he/she] hurts my feelings.
9. \_\_\_\_\_ sometimes says mean things about me to other kids.
10. \_\_\_\_\_ has good ideas about games to play.
11. \_\_\_\_\_ and I talk about how to get over being mad at each other.
12. \_\_\_\_\_ would like me even if others didn't.
13. \_\_\_\_\_ tells me I am pretty smart.
14. \_\_\_\_\_ and I always tell each other our problems.
15. \_\_\_\_\_ makes me feel good about my ideas.
16. I talk to \_\_\_\_\_ when I'm mad about something that happened to me.
17. \_\_\_\_\_ and I help each other with chores a lot.
18. \_\_\_\_\_ and I do special favors for each other.
19. \_\_\_\_\_ and I do fun things together a lot.
20. \_\_\_\_\_ and I argue a lot.
21. I can count on \_\_\_\_\_ to keep promises.
22. \_\_\_\_\_ and I go to each other's houses.
23. \_\_\_\_\_ and I always *play together at recess*. (5<sup>th</sup> grade)  
       *participate in activities together during our free time* (6<sup>th</sup> grade).
24. \_\_\_\_\_ and I give advice when figuring things out.
25. \_\_\_\_\_ and I talk about the things that make us sad.
26. \_\_\_\_\_ and I make up easily when we have a fight.
27. \_\_\_\_\_ and I fight a lot.
28. \_\_\_\_\_ and I share things with each other.

29. \_\_\_\_\_ and I talk about how to make ourselves feel better if we are mad at each other.
30. \_\_\_\_\_ does not tell my secrets.
31. \_\_\_\_\_ and I bug each other a lot.
32. \_\_\_\_\_ comes up with good ideas on ways to do things.
33. \_\_\_\_\_ and I loan each other things all the time.
34. \_\_\_\_\_ helps me so I can get done quicker.
35. \_\_\_\_\_ and I get over our arguments really quickly.
36. \_\_\_\_\_ and I count on each other for good ideas on how to get things done.
37. \_\_\_\_\_ doesn't listen to me.
38. \_\_\_\_\_ and I tell each other private things.
39. \_\_\_\_\_ and I help each other with school work a lot.
40. \_\_\_\_\_ and I tell each other secrets.
41. \_\_\_\_\_ cares about my feelings.

## Appendix I

### Hypothetical Social Situations/Questions

Instructions: Today, I'm also interested in learning about what kids do when different kinds of things happen to them when they are with other kids. I am going to ask you some questions and tell you some stories, and I want you to imagine that the stories are happening to you. After each story, I will ask you some questions about what you think about the event. I will also ask you what kinds of things you might be trying to do.

I will read the stories out loud, and I would like you to follow along in your booklet. When I read, I will say boy and girl, but you should read which one it says for you. Please keep in mind that none of these stories are real. Also, please follow along while I read the story and the questions. Please do not go ahead. Okay, let's begin.

#### Situations:

1. Imagine that you are in the lunchroom. You've just gotten your food and are walking toward a table of girls/boys. You're about to put your tray down when they say, "You can't sit here!"
2. Imagine that you are at school. During gym class, you go outside and try to join in a kickball game with another group of girls/boys. They tell you that you can't play.
3. While spending time in the library, you notice that a group of girls/boys is crowded around a computer. You walk over to join in and they say, "Hey, we didn't ask you!"
4. Imagine that you're in one of your classes. The teacher asks you to divide into groups to complete a science project. You notice that the girls/boys sitting around you are getting together. When you move over to join them, they say, "We don't want you in our group!"
5. Imagine that you are getting on a bus for a field trip. You notice a group of girls/boys sitting toward the back of the bus. When you walk back to sit down with them, they tell you that you can't sit there.



Questions:

(same set of questions is used for each story with specific information inserted)

1. When the other girls/boys said *you couldn't sit with them*, would it make you wonder:

	not at all	sort of no	somewhat	sort of yes	yes, very much
A. Did I not try hard enough?	1	2	3	4	5
B. Are they just in a bad mood?	1	2	3	4	5
C. Are the group of girls/boys and I just too different from each other?	1	2	3	4	5
D. Am I a likeable person?	1	2	3	4	5

What would you most likely be wondering after the girls wouldn't let you sit with them?  
\_\_\_\_\_ (Fill in one letter from Question 1).

2. What would you be trying to do after the girls/boys told you *that you couldn't sit with them*?

	really <u>disagree</u>			really agree	
A. I would be trying to still get along with the other girls/boys.	1	2	3	4	5
B. I would be trying to make myself look more popular.	1	2	3	4	5
C. I would be trying to stay away from the other girls/boys.	1	2	3	4	5
D. I would be trying to figure out how to join in next time.	1	2	3	4	5
E. I would be trying to make the other girls/boys feel bad.	1	2	3	4	5

What would you most likely be trying to do after the girls wouldn't let you sit with them? \_\_\_\_\_ (Fill in one letter from Question 2).

## Appendix J

## Self-Perception Profile for Children

For each item, the child puts an X in one box to indicate the statement that best describes him/her and whether that statement is “really true” or “sort of true” for him/her.

	Really True for me	Sort of True for me				Sort of True for me	Really True for me
	[ ]	[ ]				[ ]	[ ]
1.	[ ]	[ ]	Some kids feel that they are very good at their school work	<b>BUT</b>	Other kids worry about whether they can do the work assigned to them.	[ ]	[ ]
2.	[ ]	[ ]	Some kids find it hard to make friends	<b>BUT</b>	Other kids find it's pretty easy to make friends.	[ ]	[ ]
3.	[ ]	[ ]	Some kids do very well at all kinds of sports	<b>BUT</b>	Other kids don't feel that they are very good when it comes to sports.	[ ]	[ ]
4.	[ ]	[ ]	Some kids are happy with the way they look	<b>BUT</b>	Other kids are not happy with the way they look.	[ ]	[ ]
5.	[ ]	[ ]	Some kids often do not like the way they behave	<b>BUT</b>	Other kids usually like the way they behave.	[ ]	[ ]
6.	[ ]	[ ]	Some kids are often unhappy with themselves	<b>BUT</b>	Other kids are pretty please with themselves.	[ ]	[ ]
7.	[ ]	[ ]	Some kids feel like they are just as smart as other kids their age	<b>BUT</b>	Other kids aren't so sure and wonder if they are as smart.	[ ]	[ ]
8.	[ ]	[ ]	Some kids have a lot of friends	<b>BUT</b>	Other kids don't have very many friends.	[ ]	[ ]

	Really True for me	Sort of True for me				Sort of True for me	Really True for me
9.	[ ]	[ ]	Some kids wish they could be a lot better at sports	<b>BUT</b>	Other kids feel they are good enough at sports.	[ ]	[ ]
10.	[ ]	[ ]	Some kids are happy with their height and weight	<b>BUT</b>	Other kids wish their height or weight were different.	[ ]	[ ]
11.	[ ]	[ ]	Some kids usually do the right thing	<b>BUT</b>	Other kids often don't do the right thing.	[ ]	[ ]
12.	[ ]	[ ]	Some kids don't like the way they are leading their life	<b>BUT</b>	Other kids do like the way they are leading their life.	[ ]	[ ]
13.	[ ]	[ ]	Some kids are pretty slow in finishing their school work	<b>BUT</b>	Other kids can do their school work quickly.	[ ]	[ ]
14.	[ ]	[ ]	Some kids would like to have a lot more friends	<b>BUT</b>	Other kids have as many friends as they want.	[ ]	[ ]
15.	[ ]	[ ]	Some kids think they could do well at just about any new sports activity they haven't tried before	<b>BUT</b>	Other kids are afraid they might not do well at sports they haven't ever tried.	[ ]	[ ]
16.	[ ]	[ ]	Some kids wish their body was different	<b>BUT</b>	Other kids like their body the way it is.	[ ]	[ ]
17.	[ ]	[ ]	Some kids usually act the way they know they are supposed to	<b>BUT</b>	Other kids often don't act the way they are supposed to.	[ ]	[ ]
18.	[ ]	[ ]	Some kids are happy with themselves as a person	<b>BUT</b>	Other kids are often not happy with themselves.	[ ]	[ ]

	Really True for me	Sort of True for me				Sort of True for me	Really True for me
19.	[ ]	[ ]	Some kids often forget what they learn	<b>BUT</b>	Other kids can remember things easily.	[ ]	[ ]
20.	[ ]	[ ]	Some kids are always doing things with a lot of kids	<b>BUT</b>	Other kids usually do things by themselves.	[ ]	[ ]
21.	[ ]	[ ]	Some kids feel that they are better than others their age at sports	<b>BUT</b>	Other kids don't feel they can play as well.	[ ]	[ ]
22.	[ ]	[ ]	Some kids wish their physical appearance (how they look) was different	<b>BUT</b>	Other kids like their physical appearance the way it is.	[ ]	[ ]
23.	[ ]	[ ]	Some kids usually get in trouble because of things they do	<b>BUT</b>	Other kids usually don't do things that get them in trouble.	[ ]	[ ]
24.	[ ]	[ ]	Some kids like the kind of person they are	<b>BUT</b>	Other kids often wish they were someone else.	[ ]	[ ]
25.	[ ]	[ ]	Some kids do very well at their classwork	<b>BUT</b>	Other kids don't do very well at their classwork.	[ ]	[ ]
26.	[ ]	[ ]	Some kids wish that more people their age liked them	<b>BUT</b>	Other kids feel that most people their age do like them.	[ ]	[ ]
27.	[ ]	[ ]	In games and sports some kids usually watch instead of play	<b>BUT</b>	Other kids usually play rather than just watch.	[ ]	[ ]
28.	[ ]	[ ]	Some kids wish something about their face or hair looked different	<b>BUT</b>	Other kids like their face and hair the way they are.	[ ]	[ ]
29.	[ ]	[ ]	Some kids do things they know they shouldn't do	<b>BUT</b>	Other kids hardly ever do things they know they shouldn't do.	[ ]	[ ]

	Really True for me	Sort of True for me				Sort of True for me	Really True for me
30.	[ ]	[ ]	Some kids are very happy being the way they are	<b>BUT</b>	Other kids wish they were different.	[ ]	[ ]
31.	[ ]	[ ]	Some kids have trouble figuring out the answers in school	<b>BUT</b>	Other kids almost always can figure out the answers.	[ ]	[ ]
32.	[ ]	[ ]	Some kids are popular with others their age	<b>BUT</b>	Other kids are not very popular.	[ ]	[ ]
33.	[ ]	[ ]	Some kids don't do well at new outdoor games	<b>BUT</b>	Other kids are good at new games right away.	[ ]	[ ]
34.	[ ]	[ ]	Some kids think that they are good looking	<b>BUT</b>	Other kids think that they are not very good looking.	[ ]	[ ]
35.	[ ]	[ ]	Some kids behave themselves very well	<b>BUT</b>	Other kids often find it hard to behave themselves.	[ ]	[ ]
36.	[ ]	[ ]	Some kids are not very happy with the way they do a lot of things	<b>BUT</b>	Other kids think the way they do things is fine.	[ ]	[ ]

## BIOGRAPHY OF THE AUTHOR

Julie E. Newman was born in Livingston, New Jersey on May 21<sup>st</sup>, 1975. She was raised in Pittsburgh, Pennsylvania and graduated from North Allegheny High School in 1993. She attended the University of Richmond and graduated in 1997 with a B.A. in Psychology. She is currently completing her predoctoral internship in clinical psychology at the University of Oklahoma Health Sciences Center. She plans to begin a postdoctoral fellowship at Johns Hopkins University in September of 2003. Julie is a candidate for the Doctor of Philosophy degree in Psychology from The University of Maine in August of 2003.